

SERVICE MANUAL

R-725/RDS • AV-725 AUDIO/VIDEO PRO-LOGIC RECEIVER



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* A PRODUCT OF AV-725 OMITS ONLY TUNER PART TO R-725

 **Sherwood®**

SAFETY PRECAUTIONS

WARNING

Before servicing this unit, familiarize yourself with the following precautions:

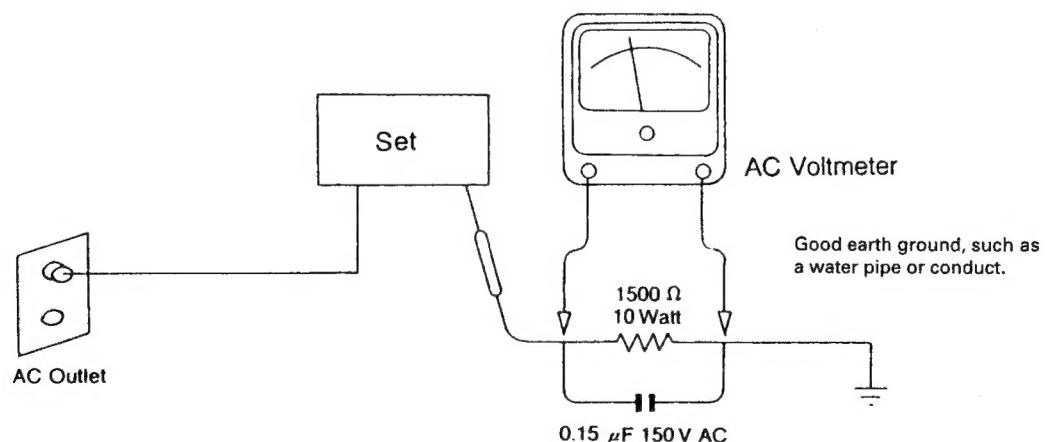
1. Many electrical and mechanical parts in this chassis have special safety characteristics that often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements: electrical components having such features are identified by ! in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

2. Before returning the set to the customer, always do an AC leakage current check on the

exposed metal parts of the cabinet, such as terminals, screw heads, and metal overlays, to be sure the set is safe to operate. Danger of electrical shock. Plug the AC line cord directly into a 120 V AC outlet (120 V AC version only). (Do not use a line isolation transformer during this check.) Be sure your AC voltmeter has a sensitivity of 5000 Ω per volt or greater. Then connect a 1500 Ω 10 watt resistor, paralleled by a 0.15 μ F 150 V AC capacitor, between a known good earth ground (such as a water pipe, or conduit) and the exposed metalic parts, one at a time. Measure the AC voltage across the combination of a 1500 Ω resistor and a 0.15 μ F capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metalic part. Voltage measured must not exceed 0.75V RMS. This corresponds to 0.2 mA AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

At 5000 Ω per volt or greater sensitivity, the reading should not exceed 0.75 V.



Place the probe on each exposed metalic part.

SPECIFICATIONS

FRONT AMP SECTION

Measuring methods are based on IHF and IEC standard 268-3.

Measurements conditions, unless otherwise noted :

- * Output resistive load : 8 ohms/Both channel driven
- * Tone(Bass, Treble), Balance, EQ control : Center Position, Other SWs : OFF.
- * Nominal input level : 5 mV for MM, 0.5 mV for MC, 500 mV for general purpose inputs.
- * Power figures should be kept minimum 10 min. between 15 and 35 °C.
- * Terminator : 100 ohm for MC, 1 kohm for MM and general purpose inputs.
- * Filter : IHF-A filter

* R/O : Rated Output

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT	NOMINAL
1	Input Sensitivity	AUX	1 kHz		mV	200 ± 50	200 ± 30
			MM		mV	2.5 ± 0.5	2.5 ± 0.3
2	Channel Balance	AUX	1 kHz	R/O TO -40dB	dB	± 3	± 2
			1 kHz	-40 TO -60dB	dB	± 6	± 4
3	Residual Noise	AUX	1 kHz	VOL min.	mV	≤ 1	≤ 7
4	Total Harmonic Distortion	AUX (500mV)	20Hz	R/O 1W	%	≤ 0.2	≤ 0.09
			1kHz	"	%	≤ 0.2	≤ 0.09
			20Hz	"	%	≤ 0.3	≤ 0.2
5	Continuous Average Power at (0.2)% THD	AUX	20Hz	8 ohms	W	130	132
			1kHz	"	W	130	132
			20Hz	"	W	130	132
6	IMD(SMPTE)	AUX(500mV)	60Hz=4	R/O	%	≤ 0.2	≤ 0.09
			7kHz=1	1W	%	≤ 0.2	≤ 0.09
7	S/N RATIO, IHF-A FILTER	AUX(500mV)	1kHz	R/O	dB	≥ 90	≥ 93
			MM(5mV)	1kHz	R/O	≥ 68	≥ 72
8	Channel Separation	AUX(500mV)	100Hz	R/O -3dB	dB	≥ 45	≥ 55
			1kHz	"	dB	≥ 45	≥ 55
			10kHz	"	dB	≥ 40	≥ 45
9	Function Crosstalk	CD \Rightarrow AUX	1/10 kHz	"	dB	$\geq 60/40$	$\geq 65/45$
		AUX \Rightarrow MM	1/10 kHz	"	dB	$\geq 60/40$	$\geq 65/45$
		MM \Rightarrow AUX	1/10 kHz	"	dB	$\geq 60/40$	$\geq 65/45$
10	Frequency Response (-3dB)	AUX(500mV)		1W	Hz~kHz	20~50	10~60
11	Tone Control, ± 10 dB	AUX	100Hz	1W	dB	$\pm 10 \pm 2$	$\pm 10 \pm 1$
			10kHz	1W	dB	$\pm 10 \pm 2$	$\pm 10 \pm 1$
12	Subwoofer Out sub-vol +6dB	AUX(200mV)	1kHz	M-Vol Max	V	2 ± 0.5	2 ± 0.3
13	Phono Equalization	PHONO	100Hz	TAPE OUT	dB	$RIAA \pm 1.5$	$RIAA \pm 1$
			10kHz	"	dB	$RIAA \pm 1.5$	$RIAA \pm 1$
14	Input Overload at 0.5% THD	MM	1kHz	TAPE OUT	mV	≥ 120	≥ 140
15	DIN Power at 1% THD	AUX	1kHz	R/O	W	≥ 135	≥ 140
16	Muting Level	AUX(500mV)	1kHz	R/O	dB	≥ 60	≥ 65

REAR AMP SECTION

Measurements conditions : Input level 300mV, Rear level max., Master volume adj. delay time 20ms

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT	NOMINAL
1	Power Output 0.7% THD	AUX	1kHz	8ohms	W	≥ 50	≥ 52
2	Total Harmonic Distortion	AUX	1kHz	1W	%	≤ 1	≤ 0.7
3	S/N Ratio IHF-A Filter	DOLBY STADIUM THEATER HALL	AUX	R/O	dB	≥ 55	≥ 63
			AUX	"	dB	≥ 55	≥ 63
			AUX	"	dB	≥ 55	≥ 63
			AUX	"	dB	≥ 50	≥ 63
4	Frequency Response at ± 3 dB (ONLY DOLBY)	AUX	1kHz	1W	Hz~kHz	100~6	80~7

☞ CENTER AMP SECTION

Measurements conditions : Input level 300mV, WIDE mode Center level max., Master volume adj.

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT	NOMINAL
1	Power Output at 0.3% THD	AUX	1kHz	8ohms	W	≥ 130	≥ 132
2	Total Harmonic Distortion	AUX	1kHz	1W	%	≤ 0.3	≤ 0.2
3	S/N Ratio, IHF-A Filter	AUX		R/O	dB	≥ 73	≥ 78
4	Frequency Response						
	DOLBY MODE NORMAL	AUX		1W	Hz~kHz	120~20	100~30
	WIDE	AUX		1W	Hz~kHz	60~20	40~30

☞ VIDEO SECTION

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT	NOMINAL
1	Output Level at 75ohms	VCR1(1Vp-p)	1MHz		Vp-p	1±0.2	1±0.1
2	Frequency Response	"	1MHz		Hz~MHz	DC~6	DC~6.3
3	S/N Ratio	"	1MHz		dB	40	45
4	Crosstalk	"	1MHz		dB	40	45

☞ AM SECTION

Measuring methods in conformity with IEC standard 315

Measurements condition AM - MW

* Radio frequency = 1000/999kHz, Audio frequency = 400Hz

* LM : Radio frequency = 207kHz, Audio Frequency = 400Hz

* Reference level = 5 mV/m, 10 mV/m on 50 ohms

* Test point : MW TP1=594 kHz, TP2=999 kHz, TP3=1404 kHz (USA Version)

* Test point : MW TP1=600 kHz, TP2=1000 kHz, TP3=1400 kHz (Europe Version)

* Test point : LW TP1=162 kHz, TP2=207 kHz, TP3=1404 kHz (USA Version)

* Test point : LW TP1=600 kHz, TP2=1000 kHz, TP3=1400 kHz (Europe Version)

NO	DESCRIPTION			VERSION	UNIT	LIMIT	NOMINAL
1	Tuning Cover Range	LOW~HIGH		USA	kHz	520~1710	
	STEP			EUROPE	kHz	522~1611	
				USA	kHz	10	
				EUROPE	kHz	9	
2	Usable Sensitivity	MW TP1		USA	uV/m	≤ 800	≤ 500
		TP2			uV/m	≤ 800	≤ 500
		TP3			uV/m	≤ 800	≤ 500
	MW	TP1		EUROPE	uV/m	≤ 800	≤ 500
		TP2			uV/m	≤ 800	≤ 500
		TP3			uV/m	≤ 800	≤ 500
3	S/N Ratio	MW		USA	dB	≥ 35	≥ 40
				EUROPE	dB	≥ 40	≥ 45
4	Total Harmonic Distortion			USA	%	≤ 2	≤ 1.0
				EUROPE	%	≤ 1.5	≤ 1.0
5	Over Load Distortion 5 mV 80 % MOD				%	≤ 10	≤ 5
6	Frequency Response at - 6 dB	MW			Hz	100~2 K	80~2.2K
7	Selectivity 10 kHz/ 9 kHz	MW			dB	≥ 20	≥ 25
8	AGC Figure of Merit				dB	≥ 50	≥ 55
9	Image Rejection	MW = TP3			dB	≥ 30	≥ 35
10	Whistle Modulation Input=1mV/m 21F				%	≤ 15	≤ 10
11	Auto Stop Level	MW			uV/m	800(± 6dB)	800(± 5dB)
12	Tuned Level	MW			uV/m	800(± 6dB)	800(± 5dB)
13	Output Level				mV	165 ± 50	165 ± 30

FM SECTION

Measuring methods in conformity with IEC standard 315

Measurements condition FM : Radio frequency = 98.1 MHz, Audio frequency = 1kHz

* Reference level = 1mV on (75 ohms, 300 ohms)

* Deviation : MONO = $\pm 75\text{kHz}$, Stereo = $\pm 67.5\text{kHz} \pm 7.5\text{kHz}$ (USA Version)

MONO = $\pm 40\text{kHz}$, Stereo = $\pm 40\text{kHz} \pm 7.5\text{kHz}$ (Europe Version)

* Test Point : TP 1 = 90.1MHz, TP2 = 98.1MHz, TP 3 = 106.1MHz

* Filter = B.P.F at STEREO

NO	DESCRIPTION	VERSION	UNIT	LIMIT	NOMINAL
1	Tuning Range Step	LOW~HIGH AUTO/Man	USA Europe USA Europe	MHz kHz	87.5 ~ 107.9 87.5 ~ 108.0 200 100/50
2	Usable Sensitivity S/N = 30 dB S/N = 26 dB	TP 1 TP 2 TP 3 TP 1 TP 2 TP 3	USA Europe	dBf	≤ 17.2 ≤ 17.2 ≤ 17.2 ≤ 20.2 ≤ 20.2 ≤ 20.2
3	Full Limiting Sense	Output = -3 dB	USA Europe	dBf	≤ 15.2 ≤ 20.2
4	Auto Stop Level			dBf	31.2 ± 5
5	Auto Error		USA Europe	kHz	± 20 ± 15
6	S/N Ratio	MONO STEREO		dB	≥ 64 ≥ 60
7	Total Harmonic Distortion	MONO STEREO		%	≤ 0.5 ≤ 0.8
8	50 dB Quieting Sensitivity 46 dB Quieting Sensitivity	MONO STEREO MONO STEREO	USA Europe	dBf	≤ 23.2 ≤ 48.3 ≤ 23.2 ≤ 48.3
9	Channel Separation	100 Hz 1 kHz 10 kHz		dB	≥ 35 ≥ 40 ≥ 30
10	Frequency Response at ± 1.5 dB			Hz	20~12.5
11	Spurious Response		USA Europe	dB	≥ 80 ≥ 90
12	IF Rejection	TP 1		dB	≥ 70
13	Image Rejection	TP 3	USA Europe	dB	≥ 60 ≥ 70
14	AM rejection Ratio			dB	≥ 50
15	Capture Ratio			dB	≤ 2.5
16	Alternative CH Selectivity ± 400 kHz			dB	≥ 45
17	Output Level	MONO		mV	500 ± 150
18	RDS Sensitivity		Europe	dBf	≤ 40.2
					≤ 38.2

GENERAL

Power consumption ----- USA/Canada : 4.5A, Europe : 1.100W

Power Supplies ----- USA/Canada : AC 120V, 60Hz

Europe : AC 230V, 50Hz

Dimensions (W×H×D) ----- 440×140×380 mm

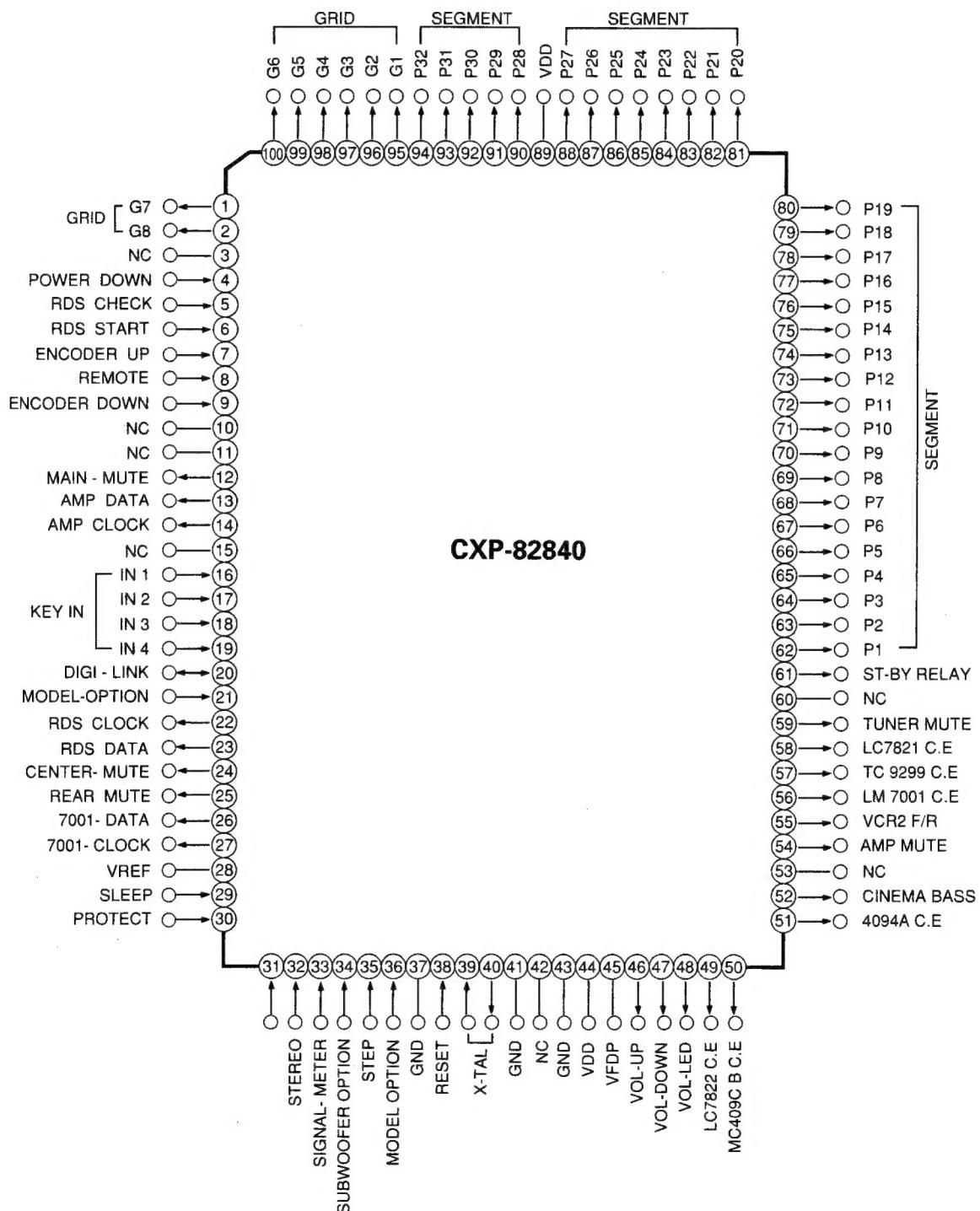
17-5/16×5-1/2×14-15/16 inches

Weight (Net) ----- 15.9 kg (34.3 lbs)

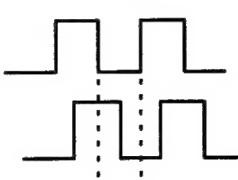
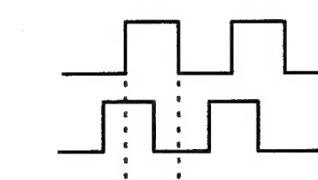
CIRCUIT DESCRIPTION

IC301 : CXP82840

1. Pin Description



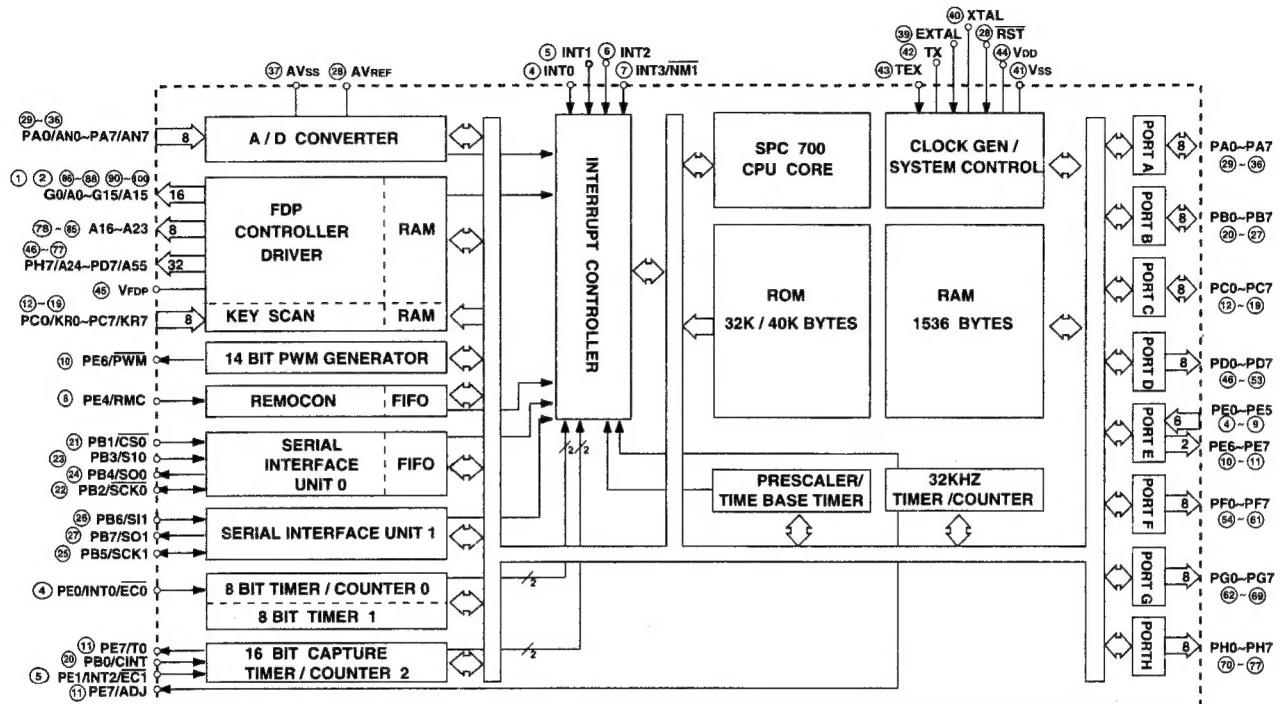
2. Input/Output Terminal Functions

Pin No.	Symbol	Description
1/2	G2/G1	Grid signal output for FIP.
3	NC	Not used.
4	POWER DOWN	Input for power down(Active low).
5	RDS CHECK	Input for RDS check.
6	RDS START	Input for RDS start.
7/9	ENC UP/DOWN	<p>Input for Encoder up and down.</p> <p style="text-align: center;">(C W)</p>  <p style="text-align: center;">(C C W)</p> 
8	REMOCON	Input for remote control signal. (Active low).
10/11	NC	Not used.
12	MAIN MUTE	<p>Output for main mute.</p> <p>Output is low level under the following conditions.</p> <ol style="list-style-type: none"> 1. When power is turned on or off. 2. When function is changed. 3. When MONO or STEREO is changed. 4. When Low level is inputed to "PROTECTION" port of CPU. 5. When mute signal is received from the commander.
13	DATA	Output datasignal to MC14094, LC7821, LC7822 and TC9299.
14	CLOCK	Output clock signal to MC14094, LC7821, LC7822 and TC9299.
15	NC	Not used.
16~19	KEY IN1~4	Input data of IN1~IN4 for key scan.
20	DIGI LINK	Input/Output for controlling digi-link .
21	MODEL OPTION	Input for selecting Model. ('L'→R525, 'H'→R-725, AV725)
22	RDS CLK	RDS clock signal input for TDA7330B. (This input is used only for R525RDS)
23	RDS DATA	RDS data signal input for TDA7330B. (This input is used only for R525RDS)
24	C-MUTE	<p>Output for center mute.</p> <p>Output is low level under the following conditions.</p> <ol style="list-style-type: none"> 1. When power is turned on or off. 2. When center mode is on or off. 3. When center mode is switched.

Pin No.	Symbol	Description																
24	C-MUTE	<p>4. When test tone mode is on or off, When the channels is changed the test tone mode.</p> <p>5. When Low level is inputed to "PROTECTION" of CPU.</p> <p>6. When mute signal is received from the commander.</p>																
25	S-MUTE	<p>Output for surround mute.</p> <p>Output is low level under the following conditions.</p> <ol style="list-style-type: none"> 1. When power is turned on or off. 2. When surround mode is on or off. 3. When test tone mode is on or off, When the channels is changed the test tone mode. 4. When delay time is changed. 5. When Low level is inputed to "PROTECTION" of CPU. 6. When mute signal is received from the commander. 																
26/27	7001-DATA/CLK	DATA/CLOCK Singnal output for LM7001.																
28	AV REF	Referance voltage of analog A/D converter.																
29	SLEEP OPTION	Input for selecting function. ('H'→St-by, 'L'→Sleep.)																
30	PROTECTION	Signal input for protection wher low level is inputed, it ischinged to STAND-BY mode.																
31	GND	Ground.																
32	STEREO	Input for lighting the ST(Stereo), Inaicator(Active low).																
33	S-METER	Input signal level of tuner.																
34	SUBWOOFER OPTION	Input for selecting subwoofer, when high level is inputed subwoofer volume is operates.																
35	STEP	<p>According to region, input for selecting the frequency bands and steps for FM and AM</p> <p>Settings are as follows</p> <table border="1"> <thead> <tr> <th>REGION</th> <th>FREQUENCY BAND</th> <th>STEP</th> <th>PIN35(IC301)</th> </tr> </thead> <tbody> <tr> <td>USA/ CANADA</td> <td>FM: 87.5 ~ 107.9 MHz AM: 520 ~ 1710 kHz</td> <td>200 kHz 10 kHz</td> <td>0 V</td> </tr> <tr> <td>EUROPE</td> <td>FM: 87.5 ~ 108 MHz AM: 522 ~ 1611 kHz</td> <td>50 kHz 9 kHz</td> <td>1 V</td> </tr> <tr> <td>KOREA</td> <td>FM: 87.5 ~ 107.9 MHz AM: 522 ~ 1611 kHz</td> <td>200 kHz 9 kHz</td> <td>2 V</td> </tr> </tbody> </table>	REGION	FREQUENCY BAND	STEP	PIN35(IC301)	USA/ CANADA	FM: 87.5 ~ 107.9 MHz AM: 520 ~ 1710 kHz	200 kHz 10 kHz	0 V	EUROPE	FM: 87.5 ~ 108 MHz AM: 522 ~ 1611 kHz	50 kHz 9 kHz	1 V	KOREA	FM: 87.5 ~ 107.9 MHz AM: 522 ~ 1611 kHz	200 kHz 9 kHz	2 V
REGION	FREQUENCY BAND	STEP	PIN35(IC301)															
USA/ CANADA	FM: 87.5 ~ 107.9 MHz AM: 520 ~ 1710 kHz	200 kHz 10 kHz	0 V															
EUROPE	FM: 87.5 ~ 108 MHz AM: 522 ~ 1611 kHz	50 kHz 9 kHz	1 V															
KOREA	FM: 87.5 ~ 107.9 MHz AM: 522 ~ 1611 kHz	200 kHz 9 kHz	2 V															
36	SET OPTION	Input for selecting set. (5V→RDS Receiver, 2.5V→Amp, 0V→Receiver)																
37	ADGND	Ground																
38	RESET	Input for resetting CPU. (Active high)																
39/40	X-TAL I/O	Input/Output for crystal oscillator.																
41	GND	Ground.																

Pin No.	Symbol	Description
42	NC	Not used.
43	GND	Ground.
44	VDD	Power supply of CPU(+5V).
45	VFL	-30V Power supply for FIP.
46/47	VOL UP/DOWN	Output data for Master volume control.
48	VOL LED	Output signal for volume LED.
49	CE(7822)	LC7822 chip enable (Surround).
50	CE(4094)	14094 chip enable (Surround).
51	CE(4094)	14094 chip enable (Video).
52	CINEMA-BASS	Output signal for Cinema-Bass function (High Active).
53	NC	Not used.
54	AMP-MUTE	When the power is on, control data output is high after 3 seconds. When the power is off, control data output is "L".
55	VCR2 OPTION	Output signal for VCR2 Inputs. ('H'-Front, 'L'-Rear)
56	CE(7001)	LM7001 chip enable.
57	CE(9299)	TC9299 chip enable. (Surr-Subwoofer Trim)
58	CE(7821)	LC7821 chip enable. (Function select)
59	T-MUTE	Output for tuner mute. Output is high level under the following conditions. 1. When power is turned on or off. 2. When tuner band is changed. 3. When tuning up or down button is pressed. 4. When preset button is pressed. 5. When displayed preset number is changed during memory scan. 6. When Low lever is inputed to "PROTECTION" of CPU. 7. When mute signal is received from the commander.
60	NC	Not used.
61	ST-BY	Output for driving power relay. (Active high)
62-70	S1-S9	Segment 1 - Segment 9.
71-81	S10-S20	Segment 10, Key check 11 - Segment 20, Key check 1.
82-88	S21-S27	Segment 21 - Segment 27.
89	VDD	+5V power supply.
90-94	S28 - S32	Segment 28 - Segment 32.
95-100	G8-G3	Grid 1 - Grid 5.

3. Block Diagram



4. Key Matrix

	Key Scan 2 Pin 80	Key Scan 3 Pin 79	Key Scan 4 Pin 78	Key Scan 5 Pin 77	Key Scan 6 Pin 76	Key Scan 7 Pin 75	Key Scan 8 Pin 74	Key Scan 9 Pin 73	Key Scan 10 Pin 72	Key Scan 11 Pin 71
Key in 1,Pin 16	Station Name	Center Level Down	Band	Tuning up	Memory Enter	7	4	Stereo	Search	Sleep
Key in 2,Pin 17	VCR 1 REC	Center Level Up	PTY Select	FM Mode	Tuning Down	8	3	Pro Logic	EON. TA	OFF
Key in 3,Pin 18	Tape2, Monitor	—	Stadium	Rear Level Down	0	9	2	Hall	EON. PTY	1
Key in 4,Pin 19	Video Labels	Center Mode	Cinema Bass	Rear Level Up	Frequency	6	5	Theater	Display	St-by

ALIGNMENT PROCEDURES

TUNER

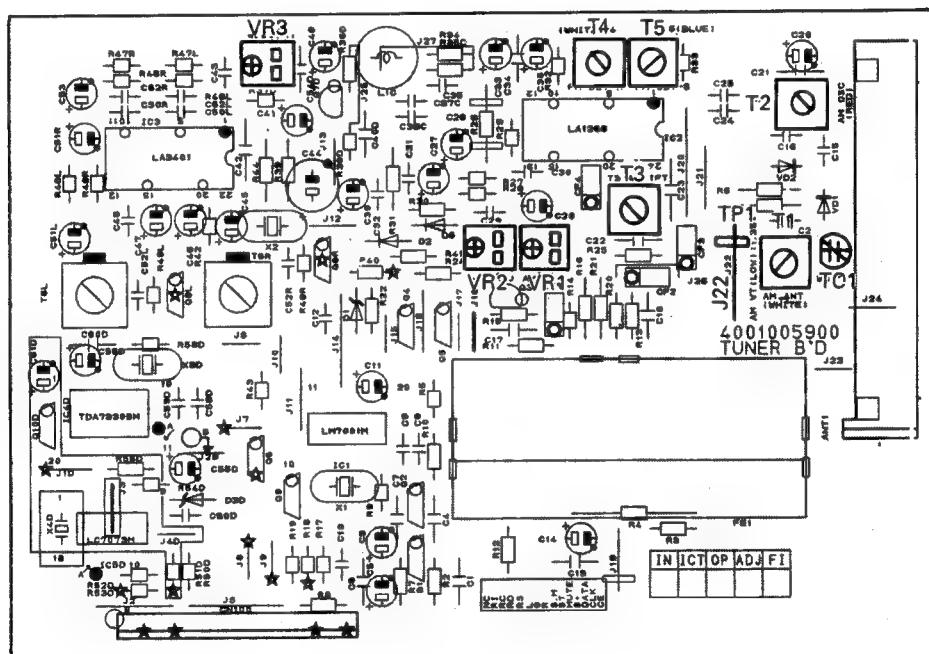
1. Equipment Required

- AM Standard Signal Generator (AM SSG)
- Oscilloscope
- AC Voltmeter
- FM Standard Signal Generator (FM SSG)
- Stereo Modulator
- Audio Generator
- Distortion Meter
- DC Voltmeter
- Frequency Counter

Note : Disconnect external FM antenna prior to alignment.

2. Alignment

2-1. Alignment and Test Point



2-2. AM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator modulation : 30 %
- RF signal frequency : 400 Hz
- Switch : Press the BAND button to AM

3	IF	1000kHz (999kHz)	1000kHz (999kHz)	Ac voltmeter and oscilloscope to speaker terminal of L or R channel	T3 AM IFT	Maximize audio output
4	Tuned Level	1000kHz (999kHz) 800 μ V/m	1000kHz (999kHz)		VR1	"Tuned" flag in the FL display light on

3-3. FM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator deviation : USA/Canada/Korea : 75kHz. Europe : 40kHz
- RF signal frequency : 1 kHz
- Switch : Press the BAND button to FM and the FM MODE button to MONO

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	Tuning Band Width	98.1MHz (98MHz)	98.1MHz (98MHz)	DC Volt meter to R26(PCB1)	T4	Zero reading on DC Volt meter
2	THD	98.1MHz (98MHz)	98.1MHz (98MHz)	Distortion meter to TAPE OUT jack of L or R channel	T5	Minimize distortion
3	Tuned Level	98.1MHz (98MHz) SSG output level : 10 μ V/m	98.1MHz (98MHz)		VR2	"Tuned" flag in the FL display light on

3-4. MPX Alignment

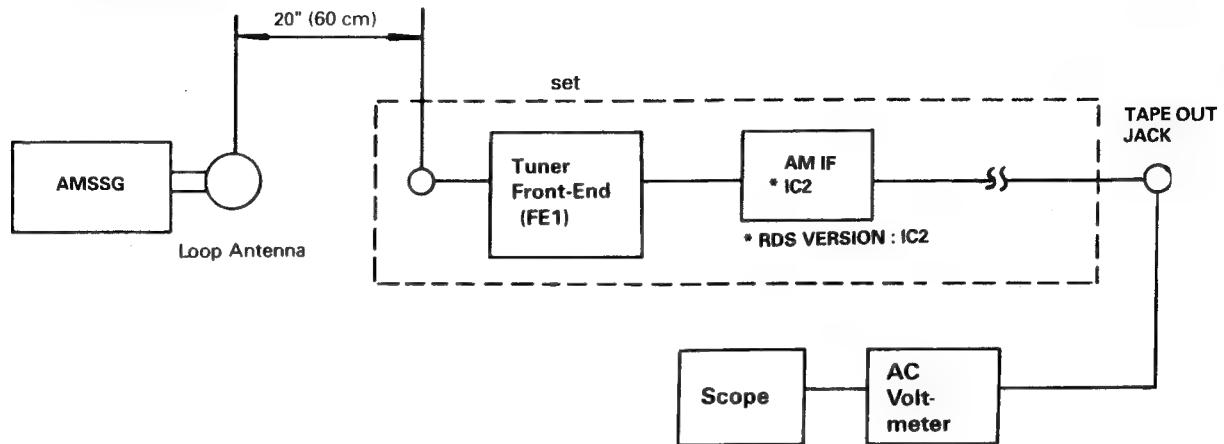
- Signal generator frequency : 98 MHz
- Signal generator deviation : USA : 75kHz. Europe : 40kHz
- RF signal frequency : 1 kHz
- Signal generator output level : 1000 μ V/m
- Connect signal generator to FM antenna terminal through FM dummy antenna (75 Ω)
- Switch : Press the BAND button to FM and the FM MODE button to STEREO

Step	Subject	19 kHz Modulation Level	Signal Generator Setting	Equipment Connection	Adjustment Point	Adjust for
1	Separation R \rightarrow L	8 % Modulation	Pilot on	AC voltmeter to speaker terminal of R channel	VR3	Set AC voltmeter to 0 dB
				AC voltmeter to speaker terminal of L channel		AC voltmeter reading should be at least 40 dB below
2	Separation L \rightarrow R	8 % Modulation	Pilot on	AC voltmeter to speaker terminal of L channel	VR3	Set AC voltmeter to 0 dB
				AC voltmeter to speaker terminal of R channel		AC voltmeter reading should be at least 40 dB below

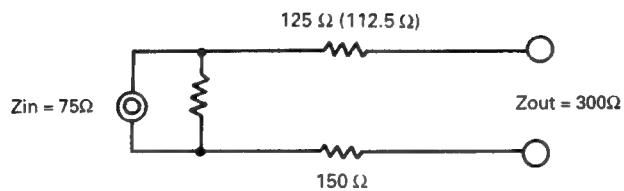
If you could not obtain -40 dB readings in steps 1 and 2, readjust VR3 until you obtain -40 dB readings. Nominal is -45 dB. (Europe: Nominal -42 dB, Limit -37 dB)

4. Equipment Connection

4-1. AM Alignment Connection

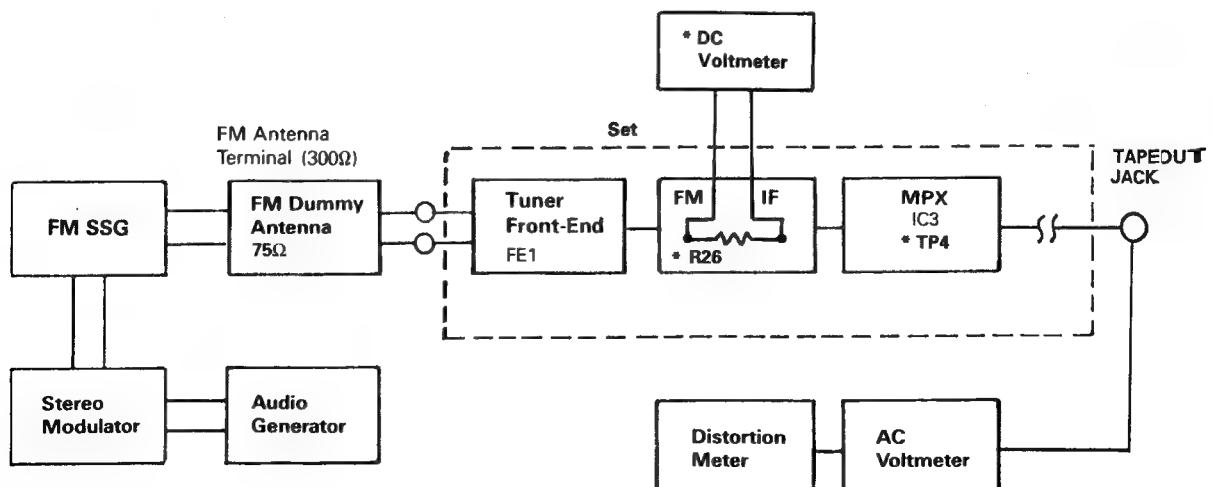


4-2. FM Dummy Antenna



FM Dummy Antenna to 300Ω Antenna terminal of system.

4-3. FM RF/IF and MPX Alignment Connection



TROUBLESHOOTING

Symptom	Cause and Remedy
Receiver inoperative. (FL indicator does not light.)	A) Faulty AC power cord. Replace. B) Defective the power switch. Replace. C) Broken wire in the power transformer. Replace. D) Blown fuse. Replace the fuse.
Fuse blows when power is turned on.	A) Defective power transformer. Replace. B) Short on the primary or secondary of the transformer circuitry. Repair the short. C) Damaged rectifier D105-D112 or damaged transistor Q215L/R/C/SL, Q216L/R/C/SL. D) Short circuit in the amplifier circuit. Repair the shorted component(s) in the amplifier circuit.
Power indicator lights but no sound from both channels.	A) Defective in transistor Q215L/R, Q216L/R on the AMP302 Biard. B) Pulled out of correct speaker switch.
One channel does not work when volume is at maximum with a test signal applied to the center terminal of volume control of the dead channel.	A) Defective in transistor Q215L/R or Q216L/R on the AMP302 Board. Replace the defect. B) Break in copper foil of printed circuit board. Repair the defect. C) Short in speaker output terminal. Repair or replace.
Speaker works normally but headphones inoperative.	A) Headphone plug does not match with jack. Replace the jack. B) Defective resistor R701L/R. Replace.
FM inoperative	A) Defective front-end (FE). Replace. B) Defective FM switch. Replace the switch. C) Defective transistor Q3 and ICS (IC2,IC3). Replace the defective transistor or IC(s). D) Defective coil T4, T5. Replace the coil(s). E) Defective lead-in. Repair or replace the lead-in. F) Ceramic filters CF1, CF3 defective. Replace the defective ceramic filter(s).
Poor multiplex separation.	A) Improper adjustment. Readjust VR3. B) IC3 defective. Replace. C) Variable resistor VR3 defective. Replace the variable resistor.
FM volume is insufficient.	A) If volume from both L and R channels is not loud enough : Front end section defective. Faulty IC2, Coil T4 or T5. If sound of one channel is not loud enough : Defective VR3.

Symptom	Cause and Remedy
STEREO indicator does not light.	A) Defective indicator in FL. Replace. B) Improper adjustment of VR2 of tuner board. Make readjustment. C) Defective IC2. Replace the defective component.
FM Mono has no effect.	A) Defective FM MODE switch. Replace.
AM inoperative.	A) Damaged IC2 of tuner Board. Replace. B) Defective T1, T2, T3 or CF4 of Tuner Board. Replace the defective component(s). D) Defective varicap diodes VD1 or VD2. Replace varicap diods(s). E) Damaged AM loop antenna. Repair or replace.
Bass control has no effect.	A) Variable resistor BASS defective. Replace.
Treble control has no effect.	A) Variable resistor TREBLE defective.
Auto tune inoperative. (UP/DOWN)	A) Poor contact in Up/Down key. Repair or replace. B) Defective IC301. Replace. C) Defective tuner Circuit components. Replace. D) In case of FM only, improper adjustment of FM front-end. Readjust.
Manual tune inoperative. (UP/DOWN) (AM or FM)	A) Poor contact in Up/Down key. B) Defective IC301. Replace.
Memory setting inoperative.	A) Poor contact in memory keys 1-10. Replace the defective component. B) Defective IC301. Replace the defective component.
FL inoperative.	A) FL defective. Replace. B) Defective IC301. Replace. C) Defective X-TAL 301. Replace.
Noisy volume control.	A) Defective volume. Replace.
Remote Control Unit inoperative.	A) Weak battery. Replace. B) Defective. Replace. C) Defective IC301 (FRONT Board) Replace.

MECHANICAL PARTS LIST

Ref. No	Description	Part No.	Q'ty	Version	Ref. No	Description	Part No.	Q'ty	Version
PACKAGE									
BOX CARTON		6017040990160	1	D/RDS	56	HOLDER PCB	4320044751010	1	
BOX CARTON		6017040990190	1	A	57	TERMINAL SPEAKER, 4P	G61204030000B	1	
POLY BAG		6330040092010	1		58	TERMINAL SPEAKER, 2P	G611040310000	1	
FILM SOFT PE		6320040052010	1		59	TERMINAL SPEAKER, 8P	G614081036000	1	
CUSHION PLOY		6230042794010	1		60	BUSHING TERMINAL	2410040270010	14	D/RDS
ACCESSORIES									
ANTENNA WIRE DIPOLE		E605010010000	1		61	GROUND TERMINAL	3790000090000	1	
ANTENNA LOOP		E601010000000	1		62	CHASSIS BACK	3207042746010	1	K
MATCHING TRANS		L109284007100	1		(62)	CHASSIS BACK	3207042746020	1	A
COMMANDER ASSY		830004025X010	1		(62)	CHASSIS BACK	3207053166010	1	D
BATTERY 1.5V AA (R6M)		G670001R50010	2		63	STOPPER CORD	3207042746050	1	RDS
MANUAL INSTRUCTION		5707045950010	1	D/RDS	64	CORD AC POWER	4380040162010	1	
MANUAL INSTRUCTION		5707046390010	1	K	65	CORD AC POWER	L061041210010	1	A
MANUAL INSTRUCTION		5707046390030	1	A	(65)	CORD AC POWER	L061040421040	1	D/RDS
CABINET & CHASSIS									
1	PANEL FRONT	3067043468050	1	A/K	66	COVER TOP	3000045396010	1	A/K
(1)	PANEL FRONT	3067046128010	1	D	67	COVER TOP	3000045406050	1	D/RDS
(1)	PANEL FRONT	3067046138010	1	RDS	68	BRACKET PCB	4010056216010	1	
2	KNOB MAIN	5087040768010	1		69	JACK PHONE (G)	G402040161330	1	
3	KNOB ENCODER	5087040778010	1		70	HOLDER FAN	4320044706010	1	
4	KNOB ROTARY(A)	5097050641010	3		71	DC-BRUSHLESS FAN	G720040030020	1	
5	BADGE, Sherwood	5637040591010	1		72	CLAMPE WIRE	4330040213010	2	
6	LED GUIDE	4350041551010	1		72	FELT BUFFER	4050045669010	1	A/K
7	CAP DECORATION	5127040931010	1	A/K	SW1	SWITCH POWER	G000041610000	1	D/RDS
(7)	CAP DECORATION	5127040931020	1	D/RDS	SW2/SW3	SWITCH PUSH	G000041170000	2	
8	WINDOW FL	5077040063010	1	A/K	SW4	SWITCH TACT	G180040500010	1	A/K
(8)	WINDOW FL	5077040073010	1	D/RDS	SW5-SW21	SWITCH TACT	G180040500010	17	
9	BODY FRONT	3417040721010	1	A/K	SW22-SW26	SWITCH TACT	G180040500010	5	RDS
(9)	BODY FRONT	3417040721020	1	D	SW27	SWITCH TACT	G180040500010	1	A/K
(9)	BODY FRONT	3417040731010	1	RDS	SW28-SW43	SWITCH TACT	G180040500010	16	
10	JACK RCA, 3P	G6060403000000	1		SW5	SWITCH TACT	G180040500010	1	
11	BRACKET JACK SWITCH	4010043616010	1		S1/S2	SCREW POWER	C495145300010	1	
12	BUTTON PUSH	5090066821010	2		S3-S55	SCREW PUSH	C450042050000	1	
13	INDICATOR STANDBY	5160040643010	1		S56-S69	SCREW #B WPTT 3×6Y	C450042060000	2	
14	BUTTON STANDBY	5090059231010	1		S70-S79	SCREW #2 BTT 3×8B	B020030061W10	14	
15	BUTTON POWER	5090059071010	1	A/K	S80-S104	SCREW #2 BTT 3×8B	B020030083B10	10	
16	BUTTON POWER	509005399101A	1	D/RDS	S105	SCREW HEATSINK	1507041146010	25	
17	HOLDER FL	4320040841010	2		S106/S107	SCREW GUIDE(A)	1507041446010	1	
18	SHIELD FENCE	3070046576010	1		S108-S112	SCREW GUIDE(B)	1507041446010	2	
19	CHASSIS FRONT	3210041046010	1		S113	SCREW GROUND	1507040996010	1	
20	COVER BOTTOM	4310041996020	1		S114-S131	SCREW #B TTT 3×8B	B020030083B10	18	
21/22	FOOT AL	4007041021010	2		S132	SCREW GROUND	1507040996010	1	
23/24	FOOT PL	4000040201010	2		S133-S140	SCREW #B TTT 3×8B	B020030083B10	8	
25	FRAME RIGHT	3200047716010	1		S141-S144	SCREW GROUND	1507040996010	4	
26	CUSHION FL B'D	4050042265010	2		S145-S148	SCREW WSAM 4×8B	B020940083W10	4	
27/28	HEATSINK, REG TR	2120044338010	2		S149-S154	SCREW BSAM 4×8B	B020940083B10	6	
29	HEATSINK, REG TR	2120044358010	1		S155-S157	SCREW #B TTT 3×8B	B020030083B10	3	
30-36	HEATSINK, REG TR	2120044338010	7		HARDWARE KIT				
37	FASTENER	4420040323010	2		S1/S2	SCREW #2FTC 3×8B	B010530083F10	2	
38	SUPPORTER PCB	4420010153010	2		S3-S55	SCREW #BTT 3×8B	B020030083B10	53	
39	HEATSINK POWER	2120044958010	1		S56-S69	SCREW #B WPTT 3×6Y	B020030061W10	14	
40	FRME LEFT	3200047706010	1		S70-S79	SCREW #2 BTT 3×8B	B020030083B10	10	
41	INSULATION COVER	1240043892010	1		S80-S104	SCREW HEATSINK	1507041146010	25	
42	AC OUTLET	G435040070000	1	A	S105	SCREW GUIDE(A)	1507041446010	1	
43	AC OUTLET	G435040110000	1	D/RDS	S106/S107	SCREW GUIDE(B)	1507041446010	2	
(43)	AC OUTLET	G435000160010	1	K	S108-S112	SCREW #B TTT 3×8B	B020030083B10	5	
44	JACK MULTI ROOM	G402042070000	1	A	S113	SCREW GROUND	1507040996010	1	
45	JACK RCA, 3P	G606300395020	1		S114-S131	SCREW #B TTT 3×8B	B020030083B10	18	
46	JACK RCA, 2P	G601200900020	1	A/D/RDS	S132	SCREW GROUND	1507040996010	1	
(46)	JACK RCA, 3P	G606300390020	1	K	S133-S140	SCREW #B TTT 3×8B	B020030083B10	8	
47	JACK RCA, 3P	G606300390020	1		S141-S144	SCREW GROUND	1507040996010	4	
48	JACK RCA, 9P	G607901500010	1		S145-S148	SCREW WSAM 4×8B	B020940083W10	4	
49	JACK RCA, 4P	G602400910010	1		S149-S154	SCREW BSAM 4×8B	B020940083B10	6	
50	JACK RCA, 6P	G603600920020	1		S155-S157	SCREW #B TTT 3×8B	B020030083B10	3	
51	JACK RCA, 2P	G601200440020	1		MISCELLANEOUS				
52	JACK RCA, 6P	G603600920040	1		POWER TRANS, 230/50	8200281016870	1	D/RDS	
53	JACK RCA, 6P	G603600920020	1		POWER TRANS, 120/60	8200281012670	1	A	
54	ANTENNA TERMINAL	G590040470000	1	A/K	POWER TRANS, 220/60	8200281012770	1	K	
(54)	ANTENNA TERMINAL	G59004046000A	1	D/RDS	SPONGE RUBBER	4050045095010	1		
55	JUMPER PLUG	L063040750000	5		CARD CABLE	L301186213590	1		

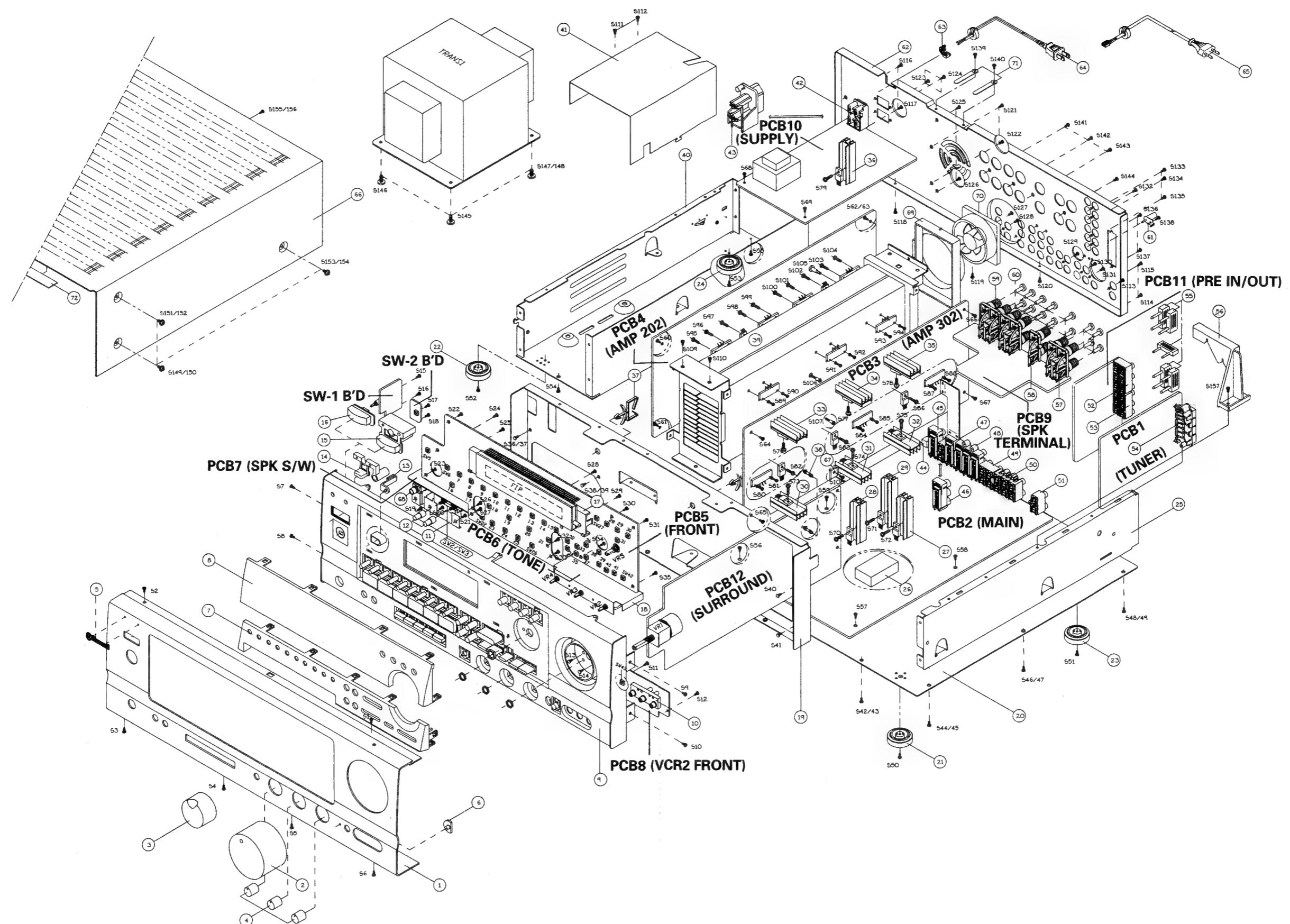
* Parts with blank version are available in common.

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list are of special significance to safety. When replacing a component identified with Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

EXPLODED VIEW

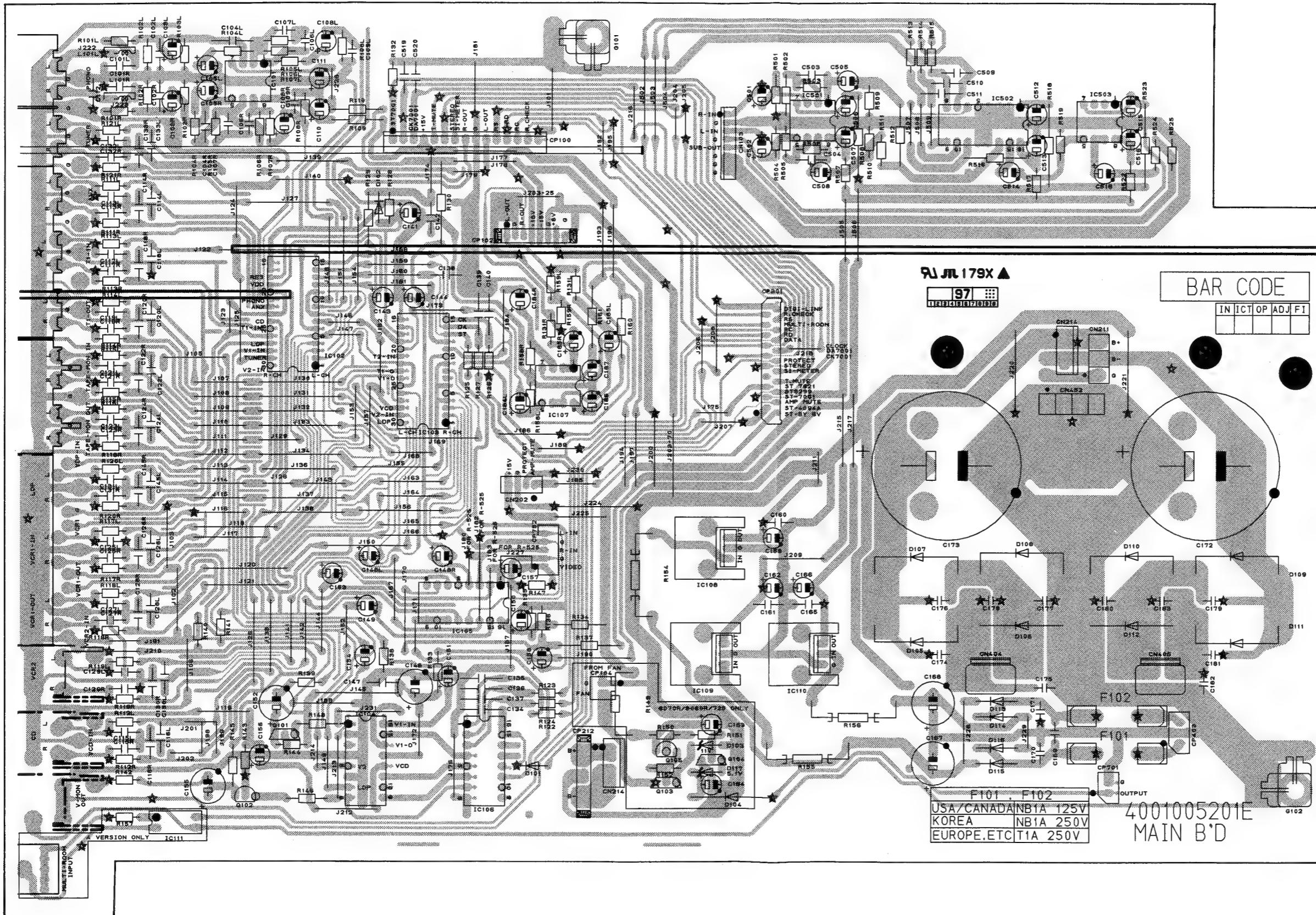
Model No. : R-725/RDS · AV-725



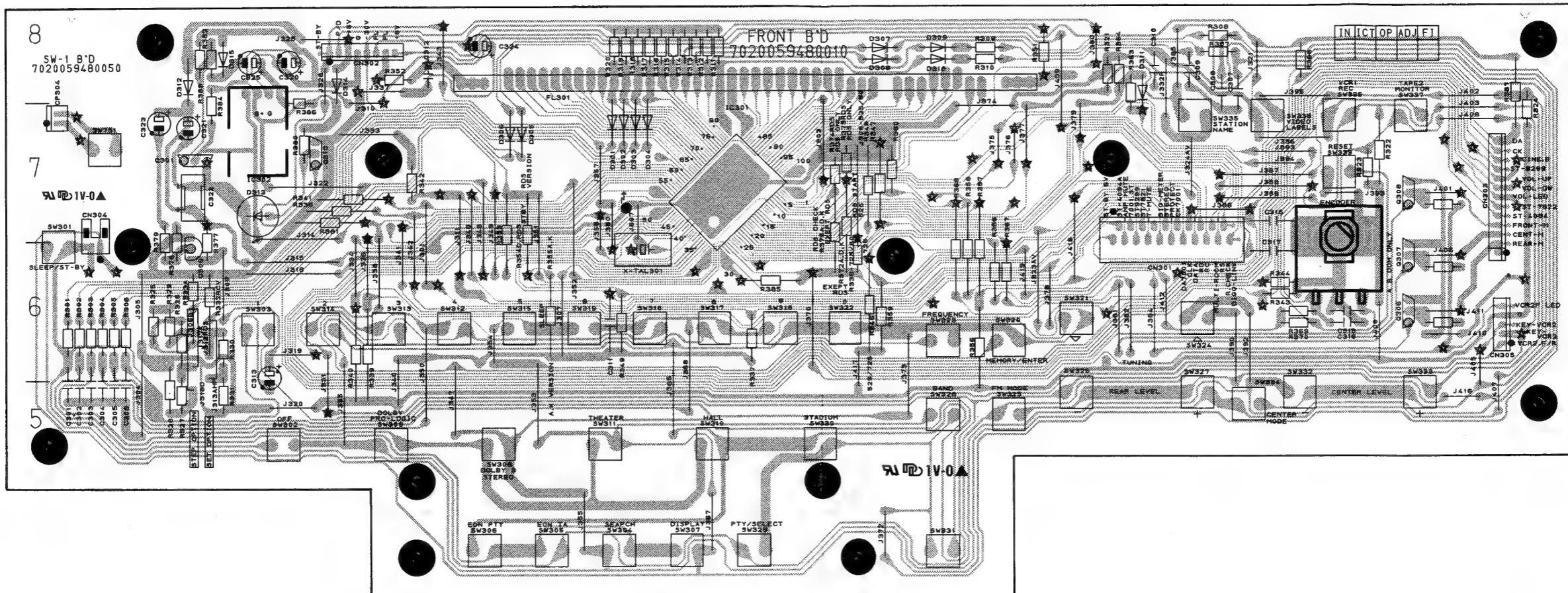
PRINTED CIRCUIT BOARDS

Model No. : R-725/RDS · AV-725

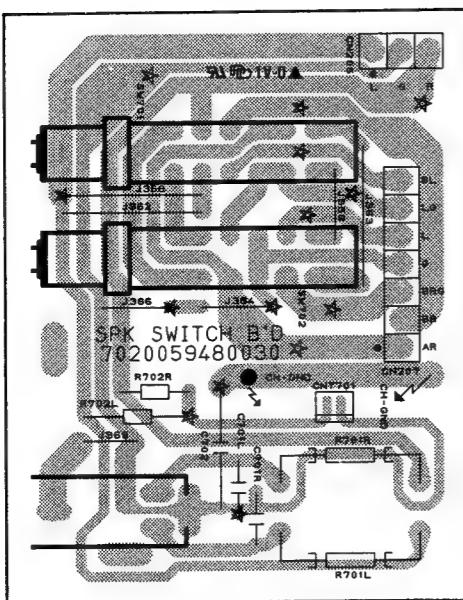
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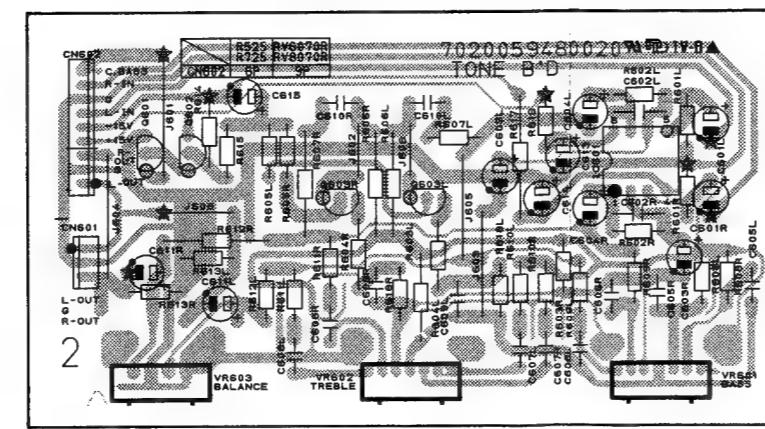
PCB5 (FRONT)



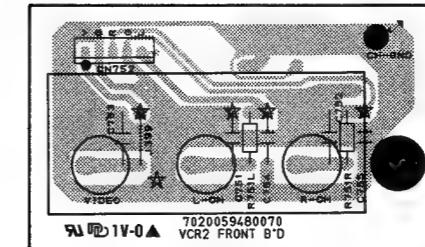
PCB7 (SPK SWITCH)



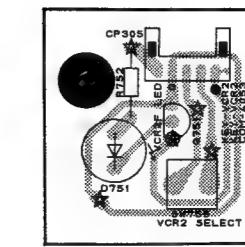
PCB6 (TONE)



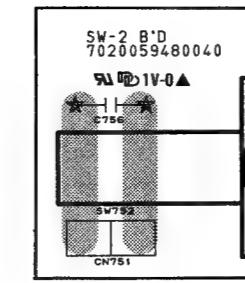
PCB8 (VCR2 FRONT)



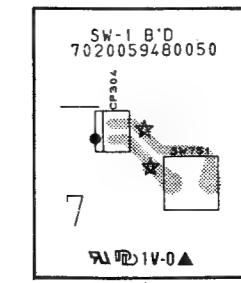
VCR2 SELECT B'D



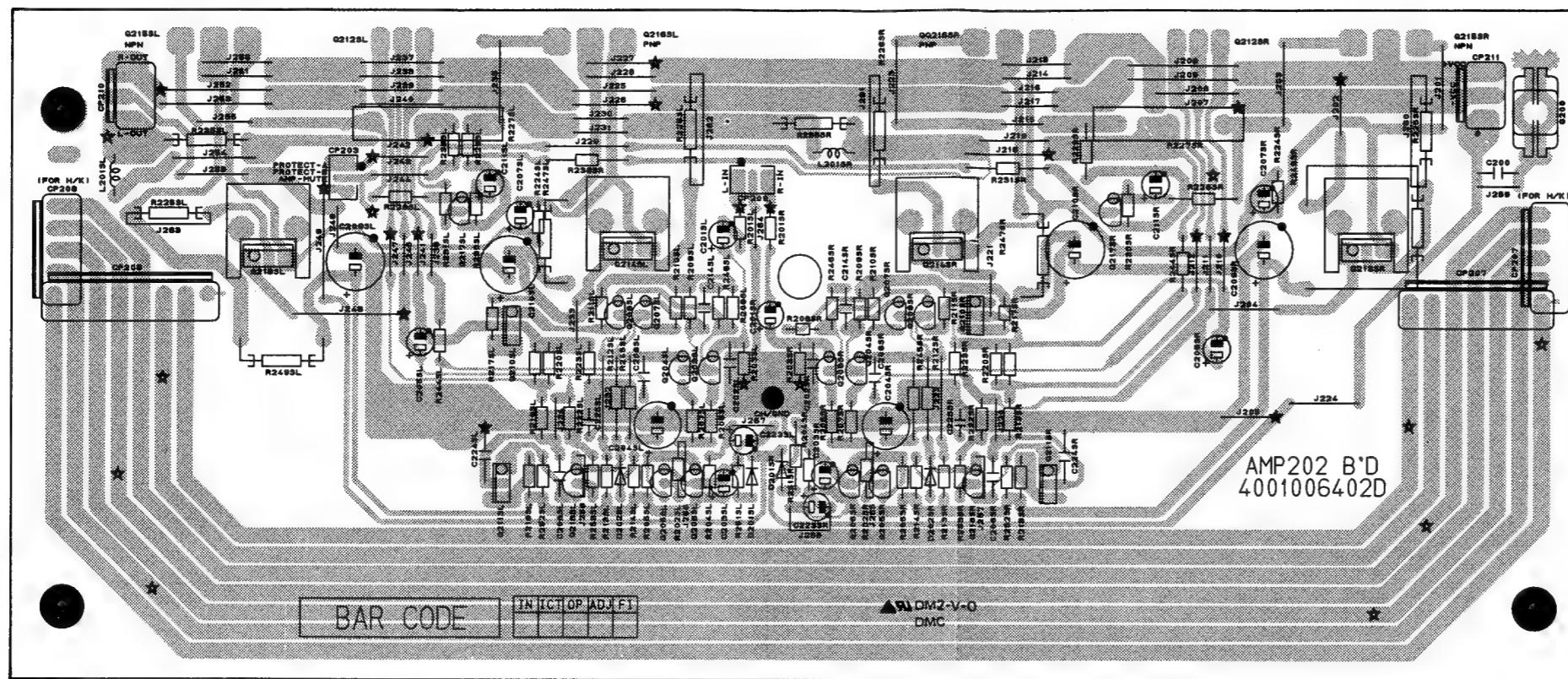
SW-2 B'D



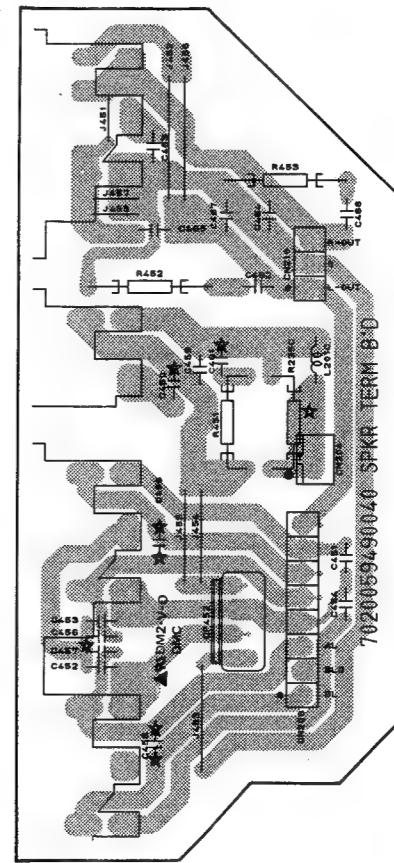
SW-1 B'D



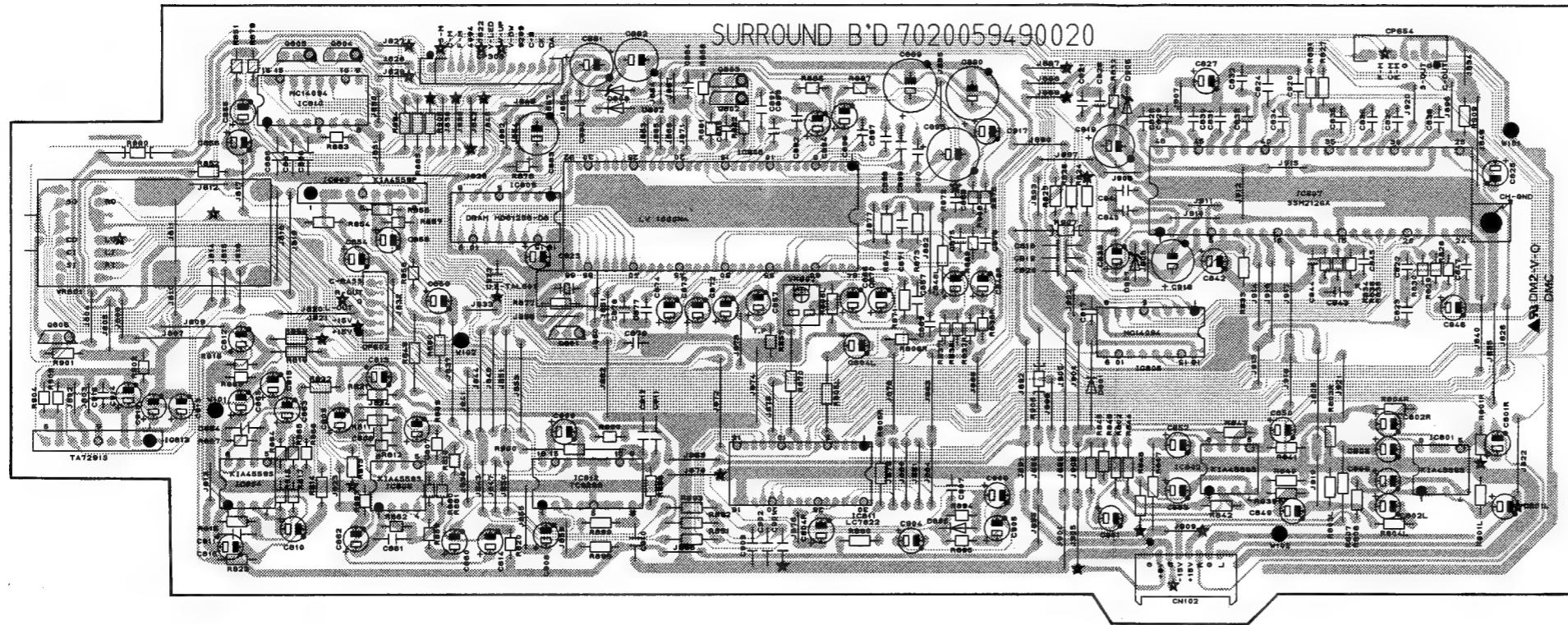
PCB4 (AMP 202)



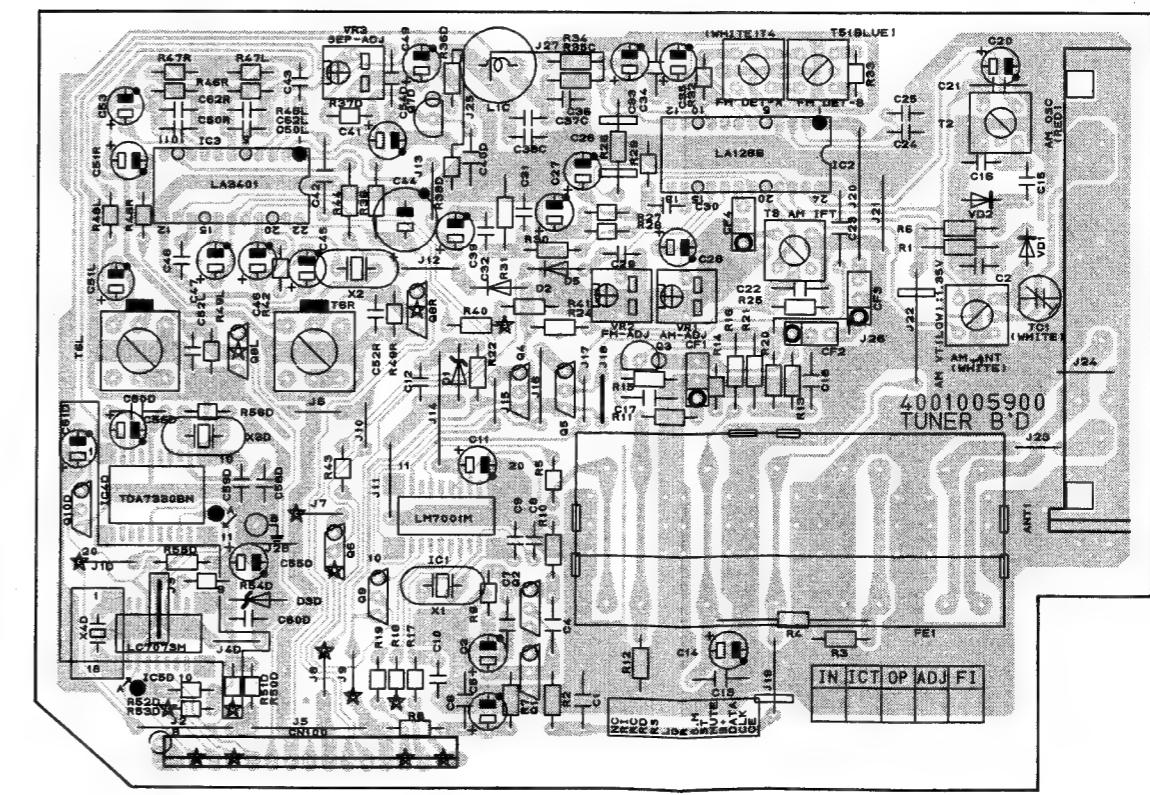
Model No. : R-725/RDS · AV-725
PCB9 (SPK TERMINAL)



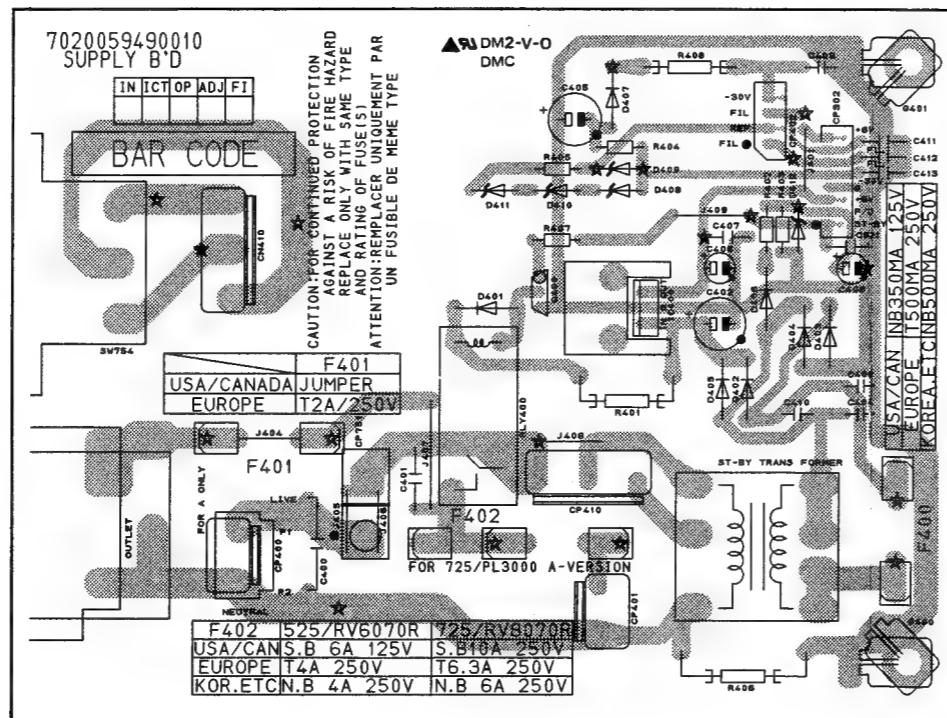
PCB12 (SURROUND)



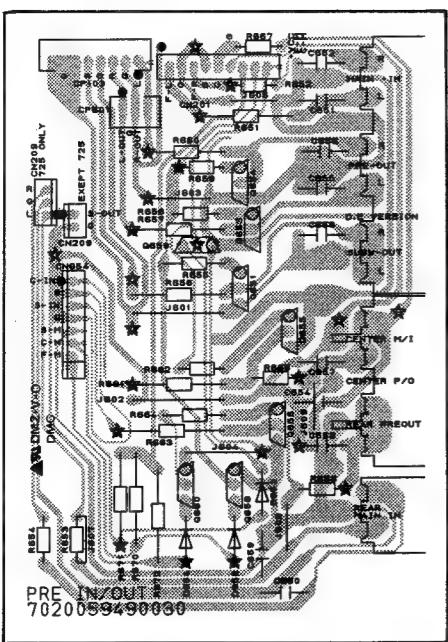
PCB1 (TUNER)



PCB10 (SUPPLY)



PCB11 (PRE IN/OUT)



ELECTRICAL PARTS LIST

Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version																																																																																																																																																																																																																																																																																														
PCB1	ASSEMBLY P.C.B. BOARD TUNER (NON RDS VERSION)				R32	CERAMIC TUBULAR	0.022 μ F	25 V	D005223574530	1	R33	CERAMIC TUBULAR	0.047 μ F	50 V	Z D004473097060	1	R34	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	R35	CERAMIC TUBULAR	0.022 μ F	25 V	M D005223574530	1	R36	CERAMIC TUBULAR	0.01 μ F	16 V	D005103773530	1	R37	CERAMIC TUBULAR	0.01 μ F	16 V	D005103773530	1	R38	CERAMIC TUBULAR	0.01 μ F	16 V	J C006001016P520	1	R39	CERAMIC TUBULAR	0.01 μ F	16 V	J C006001016P520	1	R40	CERAMIC TUBULAR	0.01 μ F	16 V	J C006001016P520	1	R41	CERAMIC TUBULAR	0.01 μ F	16 V	J C006001016P520	1	R42	CERAMIC TUBULAR	0.01 μ F	16 V	J C006001016P520	1	R43	CERAMIC TUBULAR	0.01 μ F	16 V	J C006001016P520	1	R44	CERAMIC TUBULAR	0.01 μ F	16 V	J C006001016P520	1	R45	CERAMIC TUBULAR	0.01 μ F	16 V	J C006001016P520	1	R46	CERAMIC TUBULAR	0.01 μ F	16 V	J C006001016P520	1	R47	CERAMIC TUBULAR	0.01 μ F	16 V	J C006001016P520	1	R48	CERAMIC TUBULAR	0.01 μ F	16 V	J C006001016P520	1	R49	CERAMIC TUBULAR	0.01 μ F	16 V	J C006001016P520	1	T1	AM-ANT	D304584300000	1	T2	AM-OSC	D940111027000	1	T3	AM-IFT	D950010050000	1	T4	FM-DET-A	D970010040000	1	T5	FM-DET-B	D970010060000	1	T6L/R	MPX(19/38kHz)	E401500100000	2	COILS																																																																																																																																																																								
C1	CERAMIC TUBULAR	0.022 μ F	25 V	D005223574530	1	C2	CERAMIC TUBULAR	0.047 μ F	50 V	Z D004473097060	1	C3	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C4	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C5	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C6	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C7	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C8	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C9	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C10	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C11	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C12	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C13	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C14	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C15	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C16	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C17/C18	CERAMIC TUBULAR	0.022 μ F	25 V	M D005223574530	2	C20	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C21/C22	CERAMIC TUBULAR	0.022 μ F	25 V	M D005223574530	2	C23	CERAMIC TUBULAR	0.01 μ F	16 V	M D005103773530	1	C24/C25	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C26	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C27	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C28	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C29	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C30	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C31	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C32	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C33	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C34	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C35	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C36	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C37	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C38	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C39	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C40	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C41	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C42	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C43	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C44	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C45	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C46	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C47	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C48	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C49	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C50L/R	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C51L/R	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	C53	CERAMIC TUBULAR	0.022 μ F	25 V	M D005103773530	1	CERAMIC FILTERS																	
CF1	10.7MS3GH	E430107000150	1	C17/C18	10.7MS3GH	Z D005473097060	1	C20	10.7MS3GH	Z D005473097060	1	C21/C22	10.7MS3GH	Z D005473097060	1	C23	10.7MS3GH	Z D005473097060	1	C24/C25	10.7MS3GH	Z D005473097060	1	DIODES																																																																																																																																																																																																																																																																																									
D1	ZENER, UZ 5.1V BSB	K06005R114520	1	D2	1N4148, SWITCHING	K00414801520	1	D5	1N4148, SWITCHING	K00414801520	1	VD1/VD2	VARACTOR, SVC321 SPA-C	K080032100520	2	INTEGRATED CIRCUITS																																																																																																																																																																																																																																																																																																	
IC1	LM7001M	J124700100010	1	IC2	LA1266G	J124700100010	1	IC3	LA40401	J12430100010	1	IC4	TDA730BD	J124703100010	1	IC5	LC7073M	J124707300010	1	TRANSISTORS																																																																																																																																																																																																																																																																																													
Q1/Q2	2SC1740S, NPN	J5021740S0010	2	Q3	KTC1923Y/BKTC3194Y, NPN	J5023194Y0050	1	Q4-Q6	KRA107M/DTA114YS, PNP	J601107M00050	3	Q8L/R	DTC323TS, NPN	J602323TS0050	2	Q9	KRA107M/DTA114YS, PNP	J601107M00050	1	DIODES																																																																																																																																																																																																																																																																																													
R1	CERAMIC FILM	100 kohm	1/5 W	J C00005626P520	1	R2	CERAMIC FILM	5.6 kohm	1/5 W	J C00005626P520	1	R3	CERAMIC FILM	100 kohm	1/5 W	J C00005626P520	1	R4	CERAMIC FILM	47 kohm	1/5 W	J C00005626P520	1	R5	CERAMIC FILM	22 kohm	1/5 W	J C00005626P520	1	R6	CERAMIC FILM	47 kohm	1/5 W	J C00005626P520	1	R7	CERAMIC FILM	220 kohm	1/5 W	J C00005626P520	2	R8	CERAMIC FILM	270 kohm	1/5 W	J C00005626P520	2	R9	CERAMIC FILM	2.7 kohm	1/5 W	J C00005626P520	2	R10	CERAMIC FILM	3.3 kohm	1/5 W	J C00005626P520	2	R11	CERAMIC FILM	47 kohm	1/5 W	J C00005626P520	1	R12	CERAMIC FILM	100 kohm	1/5 W	J C00005626P520	1	R13	CERAMIC FILM	100 kohm	1/5 W	J C00005626P520	1	R14	CERAMIC FILM	560 ohm	1/5 W	J C00005626P520	1	R15	CERAMIC FILM	100 kohm	1/5 W	J C00005626P520	1	R16	CERAMIC FILM	470 ohm	1/5 W	J C00005626P520	1	R17-R19	CERAMIC FILM	100 kohm	1/5 W	J C00005626P520	1	R20	CERAMIC FILM	100 kohm	1/5 W	J C00005626P520	1	R21	CERAMIC FILM	100 kohm	1/5 W	J C00005626P520</td																																																																																																																																																																																																	

Ref. No.	Description	Part No.	Qty	Version	Ref. No.	Description	Part No.	Qty	Version			
R117L/R	METAL FILM	470 ohm 1/5 W J	C06004716P520	2	R206C/L/R	METAL FILM	390 ohm 1/5 W J	C06003916P520	3			
R118L/R	METAL FILM	470 ohm 1/5 W J	C06004716P520	2	R207C/L/R	METAL FILM	390 ohm 1/5 W J	C06003916P520	3			
R119L/R	METAL FILM	470 ohm 1/5 W J	C06004716P520	2	R208C/L/R	METAL FILM	1.5 kohm 1/5 W J	C06001526P520	3			
R120L/R	METAL FILM	470 ohm 1/5 W J	C06004716P520	2	R209C/L/R	METAL FILM	1.5 kohm 1/5 W J	C06001526P520	3			
R122-R127	METAL FILM	1 kohm 1/5 W J	C06001026P520	6	R210C/L/R	METAL FILM	560 ohm 1/5 W J	C06005616P520	3			
R128	CARBON FILM	100 kohm 1/5 W J	C00001046P520	1	R211C/L/R	METAL FILM	560 ohm 1/5 W J	C06005616P520	3			
R129/R130	METAL FILM	220 ohm 1/5 W J	C06002216P520	2	R212C/L/R	METAL FILM	560 ohm 1/5 W J	C06005616P520	3			
R131	METAL FILM	470 ohm 1/5 W J	C06004716P520	2	R213C/L/R	METAL FILM	560 ohm 1/5 W J	C06005616P520	3			
R133	METAL FILM	3.3 ohm 1/5 W J	C0603R306P520	1	R214C/L/R	METAL FILM	560 ohm 1/5 W J	C06005616P520	3			
R134-R137	METAL FILM	3.3 kohm 1/5 W J	C06003326P520	4	R215C/L/R	METAL FILM	4.7 kohm 1/5 W J	C08004726P520	3			
R138-R140	METAL FILM	75 ohm 1/5 W J	C06007506P520	3	R216C/L/R	METAL FILM	560 ohm 1/5 W J	C06005616P520	3			
R141-R143	METAL FILM	75 ohm 1/5 W J	C06007506P520	3	R217C/L/R	METAL FILM	82 ohm 1/5 W J	C06008206P520	3			
R144-R146	METAL FILM	100 ohm 1/5 W J	C06001016P520	3	R218C/L/R	METAL FILM	82 ohm 1/5 W J	C06008206P520	3			
R147	METAL FILM	75 ohm 1/5 W J	C06007506P520	1	R219C/L/R	METAL FILM	1.2 kohm 1/5 W J	C06001226P520	3			
R148	METAL FILM	100 ohm 1/5 W J	C06001016P520	1	R220C/L/R	METAL FILM	910 ohm 1/5 W J	C06009118P520	3			
R154	METAL FILM	10 ohm 2 W J	C0600100865P20	1	R221C/L/R	METAL FILM	1 kohm 1/5 W J	C06001026P520	3			
R155	METAL FILM	4.7 ohm 2 W J	C0604R7066520	1	R222C/L/R	CARBON FILM	22 kohm 1/5 W J	C00002236P520	3			
R156	METAL FILM	10 ohm 2 W J	C0600100665P20	1	R223C/L/R	CARBON FILM	22 kohm 1/5 W J	C00002236P520	3			
R157	METAL FILM	470 ohm 1/5 W J	C06004716P520	1	R224C/L/R	METAL FILM	82 ohm 1/5 W J	C06008206P520	3			
R158L/R	CARBON FILM	100 kohm 1/5 W J	C00001046P520	1	R227C/L/R	CEMENT (Dual)	0.27 ohm 5 W J	C141R27079300	3			
R159L/R	CARBON FILM	100 kohm 1/5 W J	C00001046P520	2	R228C/L/R	METAL FILM	2.2 kohm 1/5 W J	C06002226P520	3			
R160/R181	METAL FILM	220 ohm 1/5 W J	C06002216P520	2	R229C/L/R	METAL FILM	2.2 kohm 1/5 W J	C06002226P520	3			
R188	METAL FILM	4.7 kohm 1/5 W J	C06004726P520	1	R230C/L/R	METAL FILM	1 kohm 1/5 W J	C06001026P520	3			
R501	CARBON FILM	100 kohm 1/5 W J	C00001046P520	1	R231C/L/R	CARBON FILM	8.8 kohm 1/5 W J	C00008826P520	3			
R502	METAL FILM	1 kohm 1/5 W J	C06001026P520	1	R232	CARBON FILM	68 kohm 1/5 W J	C00006836P520	1			
R503	METAL FILM	1.2 kohm 1/5 W J	C06001226P520	1	R233	CARBON FILM	100 kohm 1/5 W J	C00001046P520	1			
R504	CARBON FILM	100 kohm 1/5 W J	C00001046P520	1	R234	METAL FILM	3.3 kohm 1/5 W J	C06003326P520	1			
R505	METAL FILM	1 kohm 1/5 W J	C06001026P520	1	R235L/R	METAL FILM	10 ohm 1 W J	C060010065520	2			
R506	METAL FILM	1.2 kohm 1/5 W J	C06001226P520	1	R237L/R	METAL FILM	10 ohm 1 W J	C060010065520	2			
R507/R508	METAL FILM	220 ohm 1/5 W J	C06002216P520	2	R238C/L/R	CARBON FILM	22 kohm 1/5 W J	C00002236P520	3			
R509/R510	CARBON FILM	100 kohm 1/5 W J	C00001046P520	2	R239	METAL FILM	1.5 kohm 1/5 W J	C06001526P520	1			
R511-R515	METAL FILM	1 kohm 1/5 W J	C06001026P520	5	R240	METAL FILM	470 ohm 1/5 W J	C06004716P520	1			
R516	CARBON FILM	4.7 kohm 1/5 W J	C00004726P520	1	R241	CARBON FILM	10 kohm 1/5 W J	C00001036P520	1			
R517/R518	METAL FILM	220 ohm 1/5 W J	C06002216P520	2	R242	CARBON FILM	7.5 kohm 1/5 W J	C00007526P520	1			
R519	CARBON FILM	100 kohm 1/5 W J	C00001046P520	1	R243	CARBON FILM	150 kohm 1/5 W J	C00001546P520	1			
R522/R523	METAL FILM	220 ohm 1/5 W J	C06002216P520	2	R244C/L/R	CARBON FILM	33 kohm 1/5 W J	C00003336P520	3			
R524	METAL FILM	1 kohm 1/5 W J	C06001026P520	1	R245C	METAL FILM	1.8 kohm 1/5 W J	C06001826P520	1			
R525	CARBON FILM	100 kohm 1/5 W J	C00001046P520	1	R245L/R	METAL FILM	1.2 kohm 1/5 W J	C06001226P520	2			
PCB3 ASSEMBLY P.C. BOARD AMP302												
CAPACITORS												
C201C/L/R	ELECTROLYTIC SG	47 μ F 16 V M	D040470083100	3	C201SL/SR	ELECTROLYTIC SG	47 μ F 16 V M	D040470083100	2			
C202C/L/R	CERAMIC TUBULAR	88 pF 50 V J	D001680067530	3	C202SL/SR	CERAMIC TUBULAR	100 pF 50 V J	D001101077530	2			
C203C/L/R	ELECTROLYTIC SG	100 μ F 10 V M	D040101082060	3	C203SS/UR	ELECTROLYTIC SG	100 μ F 10 V M	D040101082060	2			
C204C/L/R	ELECTROLYTIC SA	470 μ F 6.3 V M	D040471081100	3	C204SL/SR	ELECTROLYTIC SG	47 μ F 25 V M	D040470084100	2			
C205C/L/R	ELECTROLYTIC SG	10 μ F 50 V M	D040100087050	3	C205SS/UR	ELECTROLYTIC SG	10 μ F 50 V M	D040100087050	2			
C206C/L/R	CERAMIC TUBULAR	47 pF 50 V M	D001470067530	3	C206SL/SR	CERAMIC TUBULAR	47 pF 50 V M	D001470067530	2			
C207C/L/R	ELECTROLYTIC SG	4.7 μ F 50 V M	D0404R7087100	3	C207SL/SR	ELECTROLYTIC SG	4.7 μ F 50 V M	D0404R7087100	2			
C208C/L/R	CERAMIC TUBULAR	15 pF 50 V M	D001150067530	3	C208L/R	CERAMIC TUBULAR	15 pF 50 V J	D001150067530	2			
C209C/L/R	ELECTROLYTIC SM	47 μ F 100 V M	D04047008C130	3	C209SL/SR	ELECTROLYTIC SM	47 μ F 100 V M	D04047008C130	2			
C210C/L/R	ELECTROLYTIC SM	47 μ F 100 V M	D04047008C130	2	C210SL/SR	ELECTROLYTIC SM	47 μ F 100 V M	D04047008C130	2			
C211C/L/R	ELECTROLYTIC SG	22 μ F 35 V M	D040220085100	3	C211SL/SR	ELECTROLYTIC SG	10 μ F 50 V M	D040100087050	2			
C212L/R	MYLAR	0.047 μ F 100 V J	D020473706C080	2	C212SL/SR	ELECTROLYTIC SG	10 μ F 50 V M	D040100087050	2			
C213	ELECTROLYTIC SA	470 μ F 6.3 V M	D040471081100	1	C213SL/SR	CERAMIC TUBULAR	470 pF 50 V M	D005471077530	2			
C214C/L/R	CERAMIC TUBULAR	470 pF 50 V M	D005471077530	3	C214SL/SR	CERAMIC TUBULAR	47 pF 50 V M	D001470067530	2			
C215	ELECTROLYTIC SG	1 μ F 50 V M	D040010087050	1	C215L/SR	CERAMIC TUBULAR	1 μ F 50 V M	D040010087050	1			
CONNECTORS												
CP201	PLUG, 9P	L101220090000	1	CP203	PULG, 3P	L101220030000	1					
CP202	PLUG, 4P	L101220040000	1	CP207	PULG, 7P	L104202000700	1					
CP204	PLUG, 3P	L102526703010	1	CP208	PULG, 8P	L104202000800	1					
CP205	PLUG, 3P	L104202003000	1	CP209	PULG, 3P	L101220020010	1					
CP408	PLUG, 2P	L101220020000	2	CP210	PULG, 3P	L104202000300	1					
CP206	PULG, 8P	L101507600000	1	CP211	PULG, 3P	L101220030000	1					
CP410	PLUG, 2P	L102526702010	1	D/ RDS(Only)								
CN203	LEAD ASSY, 3P, 280mm	L022032634320	2	CP203	PULG, 3P	L101220030000	1					
CN411	LEAD ASSY, 3P, 120mm	L022031236320	1	CP207	PULG, 7P	L104202000700	1					
DIODES												
D201C/L/R	SWITCHING, 1N4148	K000414801520	3	CP208	PULG, 8P	L104202000800	1					
D202C/L/R	SWITCHING, 1N4148	K000414801520	3	CP209	PULG, 3P	L101220020010	1					
D203	ZENER, UZ 9.1V BSC	K06009R124520	1	CP210	PULG, 3P	L104202000300	1					
D204	SWITCHING, 1N4148	K000414801520	1	CP211	PULG, 3P	L101220030000	1					
D205	SWITCHING, 1N4148	K000414801520	1	D/ RDS(Only)								
COILS												
L201L/R	INDUCTOR, 0.5 μ H	D330900001320	2	DIODES								
TRANSISTORS												
Q203C/L/R	KTA1268/KTA970, PNP	J5001268B0050	3	Q203SL/SR	KTA1268/KTA970, PNP	J5001268B0050	2					
Q204C/L/R	KTA1268/KTA970, PNP	J5001268B0050	3	Q204SL/SR	KTA1268/KTA970, PNP	J5001268B0050	2					
Q205C/L/R	KTA1268/KTA970, PNP	J5001268B0050	3	Q205SL/SR	KTA1268/KTA970, PNP	J5001268B0050	2					
Q206C/L/R	BKTA1267Y, PNP	J5001267Y0050	3	Q206SL/SR	BKTA1267Y, PNP	J5001267Y0050	2					
Q207C/L/R	KTC3200/KTC2240BL, NPN	J5032300B0050	3	Q207SL/SR	KTC3200/KTC2240BL, NPN	J5032300B0050	2					
Q208C/L/R	KTC3200/KTC2240BL, NPN	J5032300B0050	3	Q208SL/SR	KTC3200/KTC2240BL, NPN	J5032300B0050	2					
Q209C/L/R	KTA1268/KTA970, PNP	J5001268B0050	3	Q209SL/SR	KTA1268/KTA970, PNP	J5001268B0050	2					
Q210C/L/R	2SC4323	J50234230C0000	3	Q211SL/SR	2SA1360	J5001360C0000	2					
Q211C/L/R	2SC4323	J50234230C0000	3	Q212SL/SR	2SC4137, NPN	J5024137V0130	2					
Q212C/L/R	2SA1360	J5001360C0000	3	Q213SL/SR	2SC4883A, NPN	J5024883Y0000	2					
Q213C/L/R	2SC4137, NPN	J5024137V0130	3	Q214SL/SR	2SA1859, NPN	J5021859Y0000	2					
Q214C/L/R	2SA1360	J5001360C0000	3	Q215SL/SR	2SC3519A, NPN	J5023159Y0000	2					
Q215C/L/R	2SC4137, NPN	J5022238Y0000	3	Q216SL/SR	2SA136A, PNP	J5001386Y0000	2					
Q216C/L/R	2SC2921	J5022921Y0000	3	Q217SL/SR	2SC1740S, NPN	J5021740S0010	2					
Q217C/L/R	2SA1215	J5001215Y0000	3	RESISTORS								
Q218	2SC1740S, NPN	J5021740S0010	3	R201SL/SR	METAL FILM	1 kohm 1/5 W J	C06001026P520	2				
Q219/Q220	BKTA1267Y, PNP	J5021267Y0050	1	R203SL/SR	CARBON FILM	33 kohm 1/5 W J	C00003336P520	2				
RESISTORS												
R201C/L/R	METAL FILM	1 kohm 1/5 W J	C06001026P520	3	R204SL/SR	CARBON FILM	10 kohm 1/5 W J	C00001036P520	2			
R203C/L/R	CARBON FILM	33 kohm 1/5 W J	C00003336P520	3	R205SL/SR	METAL FILM	270 ohm 1/5 W J	C06002716P520	2			
R20												

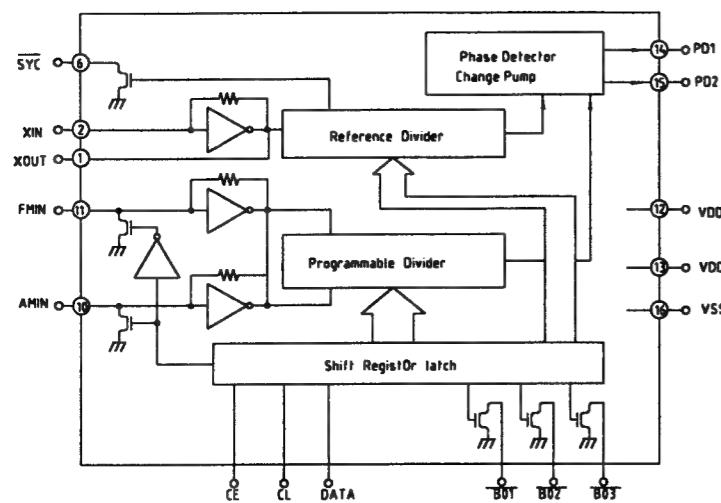
Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version
R210SL/SR	METAL FILM	560 ohm 1/5 W J C06005616P520	2		R385	CARBON FILM	180 kohm 1/5 W J C00001846P520	1	
R211SL/SR	METAL FILM	560 ohm 1/5 W J C06005616P520	2		R386	METAL FILM	3.9 kohm 1/5 W J C06003926P520	1	A(Only)
R212SL/SR	METAL FILM	560 ohm 1/5 W J C06005616P520	2		R387/R388	METAL FILM	470 ohm 1/5 W J C06004716P520	2	
R213SL/SR	METAL FILM	560 ohm 1/5 W J C06005616P520	2			MISCELLANEOUS			
R214SL/SR	METAL FILM	560 ohm 1/5 W J C06005616P520	2		SW301-SW303	TECT SWITCH		G180040500010	3
R215SL/SR	METAL FILM	560 ohm 1/5 W J C06005616P520	2		SW304-SW307	TECT SWITCH		G180040500010	4
R216SL/SR	METAL FILM	1 kohm 1/5 W J C06001226P520	2		SW308-SW328	TECT SWITCH		G180040500010	20
R220SL/SR	METAL FILM	470 ohm 1/5 W J C06004716P520	2		SW329	TECT SWITCH		G180040500010	1
R222SL/SR	CARBON FILM	22 kohm 1/5 W J C00002236P520	2		SW330-SW334	TECT SWITCH		G180040500010	5
R223SL/SR	CARBON FILM	22 kohm 1/5 W J C00002236P520	2		SW335	TECT SWITCH		G180040500010	1 A/K(Only)
R224SL/SR	METAL FILM	82 ohm 1/5 W J C06008206P520	2		SW336-SW339	TECT SWITCH		G180040500010	4
R225SL/SR	METAL FILM	1 kohm 1 W J C060010265520	2		X-TAL301	CST10M		E830100000050	1
R226SL/SR	METAL FILM	1 kohm 1 W J C060010265520	2						
R227SL/SR	CEMENT (Dual)	0.27 ohm 5 W J C141R27079300							
R228SL/SR	METAL FILM	1 kohm 1/5 W J C06001026P520	2						
R229SL/SR	METAL FILM	1 kohm 1/5 W J C06001026P520	2						
R230SL/SR	METAL FILM	910 ohm 1/5 W J C06009116P520	2						
R231SL/SR	CARBON FILM	6.8 kohm 1/5 W J C00006826P520	2						
R235SL/SR	METAL FILM	10 ohm 1 W J C060010065520	2						
R238SL/SR	CARBON FILM	22 kohm 1/5 W J C00002236P520	2						
R244SL/SR	CARBON FILM	33 kohm 1/5 W J C00003336P520	2						
R245SL/SR	METAL FILM	2.2 kohm 1/5 W J C06002226P520	2						
R246SL/SR	METAL FILM	1 kohm 1/5 W J C06001026P520	2						
R247SL/SR	METAL FILM	47 ohm 1 W J C060047065520	2						
R249SL/SR	METAL FILM	47 ohm 1 W J C060047065520	2						
R251SL/SR	CARBON FILM	33 kohm 1/5 W J C00003336P520	2						
* ASSEMBLY P.C.BOARD FRONT (PCB 5, 6, 7, 8)									
PCB5, 6, 7, 8 ASSEMBLY P.C.BOARD FRONT									
PCB5, 6, 7, 8 ASSEMBLY P.C.BOARD FRONT									
CAPACITORS									
C301-C310	CERAMIC TUBULAR	100 pF 50 V J D001101077530	10		CN601	CAPACITORS			
C312	MYLAR	0.047 μ F 100 V M D0247306C060	2		C601L/R	ELECTROLYTIC SG	4.7 μ F 50 V M D0404R7087100	2	
C313	ELECTROLYTIC SG	0.1 μ F 80 V M D040R10087050	1		C602L/R	CERAMIC TUBULAR	100 pF 50 V J D001101077530	2	
C316/C317	CERAMIC TUBULAR	100 pF 50 V J D001101077530	1		C603L/R	ELECTROLYTIC SG	10 μ F 50 V M D040100087050	2	
C318/C319	CERAMIC TUBULAR	820 pF 50 V D005821077530	2		C604L/R	ELECTROLYTIC SG	4.7 μ F 50 V M D0404R7087100	2	
C320	ELECTROLYTIC SG	47 μ F 16 V M D040470065100	1		C605L/R	MYLAR	0.082 μ F 63 V K D0282308060	2	
C321	ELECTROLYTIC SG	47 μ F 25 V M D040470084100	1		C606L/R	MYLAR	0.015 μ F 100 V J D02015306C060	2	
C322	ELECTROLYTIC SG	0.047 μ F 5.5 V M D090473704010	1		C607L/R	MYLAR	0.022 μ F 100 V J D0223306C060	2	
C323	ELECTROLYTIC SG	10 μ F 50 V M D040100087050	1		C608L/R	MYLAR	0.0033 μ F 100 V J D023340708060	2	
C324	ELECTROLYTIC SG	47 μ F 50 V M D040470087100	1		C609L/R	MYLAR	0.33 μ F 63 V K D0203340708060	2	
C325	ELECTROLYTIC SG	10 μ F 35 V M D040100085100	1	A(Only)	C610L/R	MYLAR	0.0082 μ F 100 V J D0282206C060	2	
CONNECTORS									
CN300	LEAD ASSY, 5P, 80mm	L022050834320	1		C611L/R	ELECTROLYTIC SG	1 μ F 50 V M D040109087050	2	
CN301	PLUG, 5257-2130	L131525752100	1		C614	ELECTROLYTIC SG	47 μ F 25 V M D040470084100	1	
CN302	LEAD ASSY, 8P, 350mm	L022083534320	1		C615	ELECTROLYTIC SG	3.3 μ F 50 V M D040339087050	1	
CN303	LEAD ASSY, 12P, 200mm	L022122034320	1						
CP304	PLUG ANGLE, 2P,	L101220020010	1						
CNT301	CABLE FPC, 2P, 350mm	L301186213590	1						
DIODES									
D301-D312	1N4148, SWITCHING	K000414801520	12		R601L/R	CARBON FILM	100 kohm 1/5 W J C00001046P520	2	
D313	LED, SLR-34URCF25	K500032101120	1		R602L/R	CARBON FILM	1 M ohm 1/5 W J C00001056P520	2	
D314/D315	1N4148, SWITCHING	K000414801520	2		R603L/R	CARBON FILM	47 kohm 1/5 W J C00004738P520	2	
INTEGRATED CIRCUITS									
IC301	CXP8240-11Q	J088393227330	1		R604L/R	METAL FILM	2.7 kohm 1/5 W J C08002726P520	2	
IC302	CRV1G342-185BD, REMOTE MODULE	E940342210000	1		R605L/R	CARBON FILM	10 M ohm 1/5 W J C00001066P520	2	
TRANSISTORS									
Q301	BKTC3199/2SC3199Y, NPN	J5023199Y0050	1	A(Only)	R606L/R	METAL FILM	4.7 kohm 1/5 W J C08004726P520	2	
Q306-Q308	BKTC3199/2SC3199Y, NPN	J5023199Y0050	3		R607L/R	CARBON FILM	27 kohm 1/5 W J C00002736P520	2	
Q309	MPSA06, NPN	J5020600Y0050	1		R608L/R	METAL FILM	3.3 kohm 1/5 W J C08003328P520	2	
Q310	DTC114Y, NPN	J602114Y0050	1		R609L/R	CARBON FILM	22 kohm 1/5 W J C00002238P520	2	
DIODES									
D316	1N4148, SWITCHING	K000414801520	12		R610L/R	METAL FILM	560 ohm 1/5 W J C08005618P520	2	
D317	LED, SLR-34URCF25	K500032101120	1		R611L/R	METAL FILM	2.2 kohm 1/5 W J C08002228P520	2	
D318/D319	1N4148, SWITCHING	K000414801520	2		R612L/R	METAL FILM	1 kohm 1/5 W J C08001028P520	2	
INTEGRATED CIRCUITS									
IC301	CXP8240-11Q	J088393227330	1		R613L/R	CARBON FILM	100 kohm 1/5 W J C00001046P520	2	
IC302	CRV1G342-185BD, REMOTE MODULE	E940342210000	1		R614	CARBON FILM	100 kohm 1/5 W J C00001046P520	1	
TRANSISTORS									
Q301	BKTC3199/2SC3199Y, NPN	J5023199Y0050	1	A(Only)	R615	CARBON FILM	1 M ohm 1/5 W J C00001056P520	1	
Q306-Q308	BKTC3199/2SC3199Y, NPN	J5023199Y0050	3		R616L/R617	METAL FILM	220 ohm 1/5 W J C06002216P520	2	
Q309	MPSA06, NPN	J5020600Y0050	1		R618L/R	CARBON FILM	1 M ohm 1/5 W J C00001056P520	2	
RESISTORS									
R301-R310	METAL FILM	1 kohm 1/5 W J C06001026P520	10						
R312-R320	CARBON FILM	100 kohm 1/5 W J C00001046P520	9						
R321-R324	CARBON FILM	47 kohm 1/5 W J C00004736P520	4						
R325	CARBON FILM	22 kohm 1/5 W J C00002236P520	1						
R328-R328	CARBON FILM	10 kohm 1/5 W J C00001036P520	3						
R329	METAL FILM	4.7 kohm 1/5 W J C06004726P520	1						
R330/R331	CARBON FILM	22 kohm 1/5 W J C00002236P520	2						
R332/R333	CARBON FILM	10 kohm 1/5 W J C00001036P520	2						
R336/R337	CARBON FILM	10 kohm 1/5 W J C00001036P520	2						
R338	CARBON FILM	10 kohm 1/5 W J C00001036P520	1						
R339-R341	CARBON FILM	10 kohm 1/5 W J C00001036P520	3						
R342	CARBON FILM	100 kohm 1/5 W J C00001046P520	1						
R343/R344	CARBON FILM	10 kohm 1/5 W J C00001036P520	2						
R346-R349	CARBON FILM	100 kohm 1/5 W J C00001046P520	4						
R351/R352	METAL FILM	3.3 ohm 1/5 W J C0603R306P520	2						
R353-R355	CARBON FILM	10 kohm 1/5 W J C00001036P520	3						
R356	CARBON FILM	100 kohm 1/5 W J C00001046P520	1						
R357/R358	METAL FILM	100 ohm 1/5 W J C06001016P520	2						
R359/R360	CARBON FILM	100 kohm 1/5 W J C00001046P520	1						
R363	CARBON FILM	22 kohm 1/5 W J C00002236P520	1						
R364	CARBON FILM	220 kohm 1/5 W J C00002246P520	1						
R366-R368	METAL FILM	2.2 kohm 1/5 W J C06002228P520	3						
R369/R370	CARBON FILM	68 kohm 1/5 W J C00006836P520	2						
R372	CARBON FILM	10 kohm 1/5 W J C00001036P520	1	A/K(Only)					
R373/R374	CARBON FILM	100 kohm 1/5 W J C00001046P520	2	RDS(Only)					
R375	CARBON FILM	10 kohm 1/5 W J C00001036P520	1	A/K(Only)					
R376	METAL FILM	100 ohm 1/5 W J C06001016P520	1						
R377	CARBON FILM	100 kohm 1/5 W J C00001046P520	1						
R378	CARBON FILM	10 kohm 1/5 W J C00001036P520	1						
R379	METAL FILM	330 ohm 1/5 W J C06003316P520	1						
R380	METAL FILM	180 ohm 1/5 W J C06001816P520	1						
R381	CARBON FILM	10 kohm 1/5 W J C00001036P520	1						
R382	METAL FILM	1 kohm 1/5 W J C06001026P520	1	A(Only)					
R383/R384	CARBON FILM	10 kohm 1/5 W J C00001036P520	2	A(Only)					
CAPACITORS									
R385	CARBON FILM	180 kohm 1/5 W J C00001846P520	1						
R386	METAL FILM	3.9 kohm 1/5 W J C06003926P520	1	A(Only)					
R387/R388	METAL FILM	470 ohm 1/5 W J C06004716P520	2						
MISCELLAN									

Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version		
C467	CERAMIC DISC	0.0047 μ F	100 V Z	D004472097060	1	C805/C806	ELECTROLYTIC SG	47 μ F	25 V	M D040470084100	2
L201C	COIL INDUCTOR, 0.5 μ H			D330900001320	1	C807	ELECTROLYTIC SG	1 μ F	50 V	M D040410087050	1
CN204	CONNECTORS LEAD ASSY, 3P, 100mm			L021031034310	1	C808	CERAMIC TUBULAR	0.001 μ F	50 V	K D005102077530	1
CN205	LEAD ASSY, 8P, 240mm			L020082441660	1	C809	ELECTROLYTIC SG	22 μ F	16 V	M D040220083100	1
CN210	LEAD ASSY, 3P, 300mm			L020033041660	1	C810	ELECTROLYTIC SG	1 μ F	50 V	M D04010087050	1
CP452	PULG, 4P			L104202000400	1	C811	CERAMIC TUBULAR	0.001 μ F	50 V	K D005102077530	1
R235C	RESISTORS METAL FILM	10 ohm	1 W	J C060010065520	1	C812	ELECTROLYTIC SG	10 μ F	35 V	M D040100085100	1
R451~R453	METAL FILM	10 ohm	1 W	J C060010065520	3	C813-C816	ELECTROLYTIC SG	47 μ F	25 V	M D040470084100	4
PCB10 ASSEMBLY P.C.B. BOARD SUPPLY											
C400	CAPACITORS MYLAR	0.1 μ F	250 V	M D02010408H210	1	C817	CERAMIC TUBULAR	0.1 μ F	50 V	K D005103077530	1
C401	CERAMIC DISC	0.0047 μ F	400 V	M D00847208K010	1	C818-C820	CERAMIC TUBULAR	100 pF	50 V	J D001101077530	3
C402	ELECTROLYTIC SG	1000 μ F	16 V	M D040102083200	1	C821-C823	MYLAR	0.1 μ F	63 V	K D020104078060	3
C403/C404	MYLAR	0.047 μ F	100 V	J D02047306C060	2	C824	CERAMIC TUBULAR	680 pF	50 V	D005681077530	1
C405	ELECTROLYTIC SG	100 μ F	50 V	M D040101087100	1	C825	ELECTROLYTIC SG	10 μ F	50 V	M D040100087050	1
C406	ELECTROLYTIC SG	1 μ F	50 V	M D040010087050	1	C826	MYLAR	0.1 μ F	63 V	K D020104078060	1
C407	CERAMIC TUBULAR	0.1 μ F	50 V	D005104097530	1	C827	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R7087100	1
C408	ELECTROLYTIC SG	1 μ F	50 V	M D040010087050	1	C828/C829	MYLAR	0.22 μ F	63 V	K D020224078060	2
PCB10 ASSEMBLY P.C.B. BOARD SUPPLY											
C830-C833	MYLAR	0.33 μ F	63 V	K D020334078060	4						
C834-C837	MYLAR	0.022 μ F	100 V	J D02022308C060	4						
C838	MYLAR	0.15 μ F	63 V	K D020154078060	1						
C839	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R7087100	1						
C840/C841	MYLAR	0.22 μ F	63 V	K D020224078060	2						
C842	ELECTROLYTIC SG	10 μ F	50 V	M D040100087050	1						
C843-C845	MYLAR	0.01 μ F	100 V	J D02010308C060	3						
C846	ELECTROLYTIC SG	100 pF	10 V	M D040101082060	1						
C847	MYLAR	0.1 μ F	63 V	K D020104078060	1						
C848UR	ELECTROLYTIC SG	10 μ F	50 V	M D040100087050	2						
C849-C851	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R7087100	3						
C852/C853	ELECTROLYTIC SG	47 μ F	25 V	M D040470084100	2						
C854	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R7087100	1						
C855/C856	ELECTROLYTIC SG	47 μ F	25 V	M D040470084100	2						
C857	ELECTROLYTIC SG	10 μ F	50 V	M D040100087050	1						
C858/C859	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R7087100	2						
C860	ELECTROLYTIC SG	1 μ F	50 V	M D040100087050	1						
C861	CERAMIC TUBULAR	0.001 μ F	50 V	K D005102077530	1						
C862	ELECTROLYTIC SG	22 μ F	16 V	M D040220083100	1						
C863	ELECTROLYTIC SG	1 μ F	50 V	M D040100087050	1						
C864	CERAMIC TUBULAR	0.001 μ F	50 V	K D005102077530	1						
C865	ELECTROLYTIC SG	0.47 μ F	50 V	M D0404R7087100	1						
C866	ELECTROLYTIC SG	10 μ F	50 V	M D040100087050	1						
C867	CERAMIC TUBULAR	680 pF	50 V	D005681077530	1						
C868	MYLAR	0.0568 μ F	100 V	J D02056208C060	1						
C869	MYLAR	0.0047 μ F	100 V	J D02047206C060	1						
C870	ELECTROLYTIC SG	10 μ F	50 V	M D040100087050	1						
C871	CERAMIC TUBULAR	470 pF	50 V	D005471077530	1						
C872	ELECTROLYTIC SG	10 μ F	50 V	M D040100087050	1						
C873	ELECTROLYTIC SG	1 μ F	50 V	M D040100087050	1						
C874	ELECTROLYTIC SG	10 μ F	50 V	M D040100087050	1						
C875	MYLAR	0.022 μ F	100 V	J D02022308C060	1						
C876	MYLAR	0.0047 μ F	100 V	J D02047206C060	1						
C877	MYLAR	0.0039 μ F	100 V	J D02039206C060	1						
C878	MYLAR	0.068 μ F	63 V	K D020683078060	1						
C879	MYLAR	0.22 μ F	63 V	K D020224078060	1						
C880	MYLAR	0.1 μ F	63 V	K D020104078060	1						
C881	ELECTROLYTIC SG	220 μ F	10 V	M D040221082100	1						
C882	ELECTROLYTIC SG	220 μ F	16 V	M D040221083100	1						
C883	ELECTROLYTIC SG	220 μ F	10 V	M D040221082100	1						
C884/C885	MYLAR	0.1 μ F	63 V	K D020104078060	2						
C886-C888	CERAMIC TUBULAR	100 pF	50 V	J D001101077530	3						
C889/C890	ELECTROLYTIC SG	220 μ F	16 V	M D040221083100	2						
C891	CERAMIC TUBULAR	150 pF	50 V	D005151077530	1						
C892	MYLAR	0.022 μ F	100 V	J D02022308C060	1						
C893	CERAMIC DISC	680 pF	50 V	J D022681067050	1						
C894	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R7087100	1						
C895	ELECTROLYTIC SG	470 μ F	10 V	M D040471082100	1						
C896	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R7087100	1						
C897	CERAMIC DISC	680 pF	50 V	D022681067050	1						
C898	MYLAR	0.022 μ F	100 V	J D02022308C060	1						
C899	CERAMIC TUBULAR	150 pF	50 V	D005151077530	1						
C900	MYLAR	0.15 μ F	63 V	K D020154078060	1						
C901-C903	CERAMIC TUBULAR	100 pF	50 V	J D001101077530	3						
C904/C905	ELECTROLYTIC SG	47 μ F	25 V	M D040470084100	2						
C906	ELECTROLYTIC SG	1 μ F	50 V	M D040100087050	1						
C907	MYLAR	0.01 μ F	100 V	J D02010308C060	1						
C908/C909	ELECTROLYTIC SG	47 μ F	25 V	M D040470084100	2						
C910-C912	CERAMIC TUBULAR	100 pF	50 V	J D001101077530	4						
C913	ELECTROLYTIC SG	100 μ F	16 V	M D040101083100	1						
C914/C915	ELECTROLYTIC SG	100 μ F	10 V	M D040101082060	2						
C916	MYLAR	0.047 μ F	100 V	J D02047306C060	1						
C917	ELECTROLYTIC SG	10 μ F	50 V	M D040100087050	1						
C918/C919	ELECTROLYTIC SG	220 μ F	10 V	M D040221082100	2						
C920	CERAMIC TUBULAR	680 pF	50 V	D005681077530	1						
C921/C922	CERAMIC TUBULAR	0.1 μ F	50 V	D005104097530	2						
C924-C926	CERAMIC TUBULAR	0.1 μ F	50 V	D005104097530	3						
PCB11 ASSEMBLY P.C.B. BOARD PRE IN/OUT											
C651-C658	CAPACITORS CERAMIC TUBULAR	100 pF	50 V	J D001101077530	8	CONNECTORS					
CN654	CONNECTORS LEAD ASSY, 7P, 120mm			L022071234320	1	CN102	PLUG, 8P		L111507600810	1	
CP601	PLUG, 3P			L101220030000	1	CP303	PLUG, 12P		L101220120000	1	
CP602	PLUG, 6P			L101220060000	1	CP602	PLUG, 6P		L101220060000	1	
CP654	LEAD ASSY, 9P, 240mm			L022092434320	1	CP654	PLUG, 7P		L101220070000	1	
CN209	LEAD ASSY, 3P, 450mm			L022034537320	1	DIODES					
PCB11 ASSEMBLY P.C.B. BOARD PRE IN/OUT											
D652-D654	DIODES 1N4148, SWITCHING			K000414801520	3	D801/D802	1N4148, SWITCHING		K000414801520	2	
PCB12 ASSEMBLY P.C.B. BOARD SURROUND											
C801L/R	CAPACITORS ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R7087100	2	D803	ZENER, UZ 12V BSC		K06120024520	1	
C802L/R	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R7087100	2	D804/D805	1N4148, SWITCHING		K000414801520	2	
C804L/R	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R7087100	2	D906/D907	ZENER, UZ 6.8V BSC		K0606R814520	2	
PCB12 ASSEMBLY P.C.B. BOARD SURROUND											
IC801-IC805	INTEGRATED CIRCUIT KIA4559P/KIA7559P					IC806	MC14094BCP		J121455900010	5	
IC806						IC807	SSM-2126		J040140940000	1	
IC807						IC808	LV-1000		J081212600000	1	
IC808						IC809	256K D-RAM		J001612560000	1	

IC FUNCTIONAL BLOCK DIAGRAM

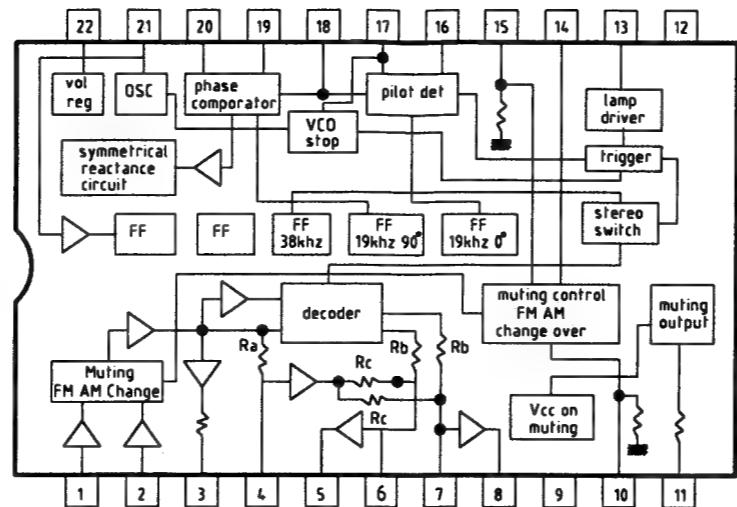
Model No. : R-725/RDS · AV-725

IC 1 : LM7001M

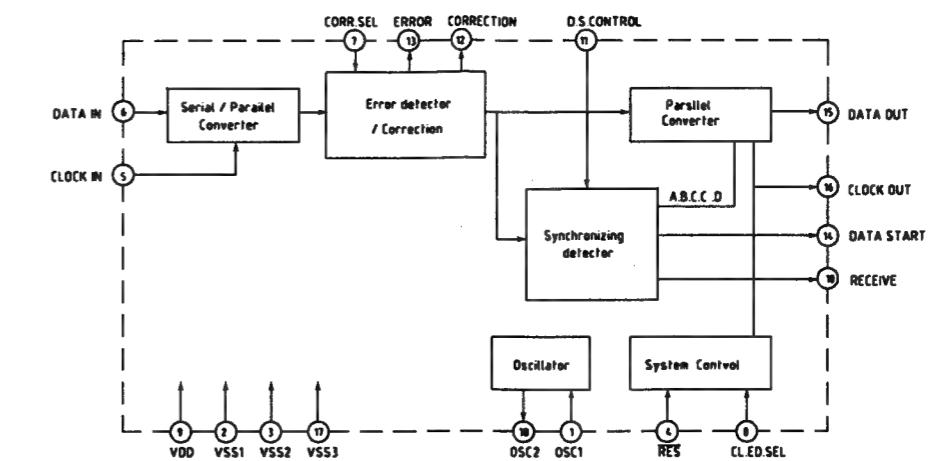


Pin Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	XOUT	XOUT																				
2	XIN	XIN																				
3	CE	NC																				
4	CL	CE																				
5	DATA	CL																				
6	SYC	DATA																				
7	B01	SYC																				
8	B02	B01																				
9	B03	B02																				
10	AMIN	B03																				
11	FMIN	NC																				
12	VDD1	AMIN																				
13	VDD2	NC																				
14	PD1	FMIN																				
15	PD2	NC																				
16	VSS	VDD1																				
17	VDD2	PD1																				
18	PD2	NC																				
19	VSS	VDD2																				
20	VSS	PD2																				

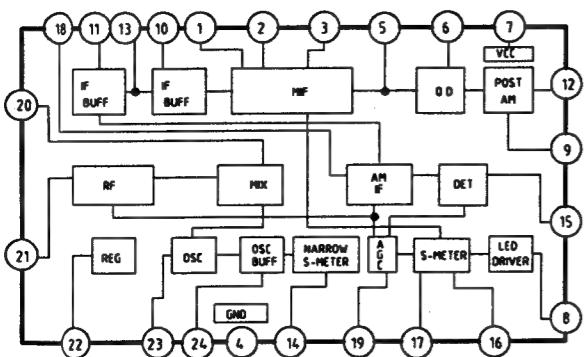
IC 3 : LA3401



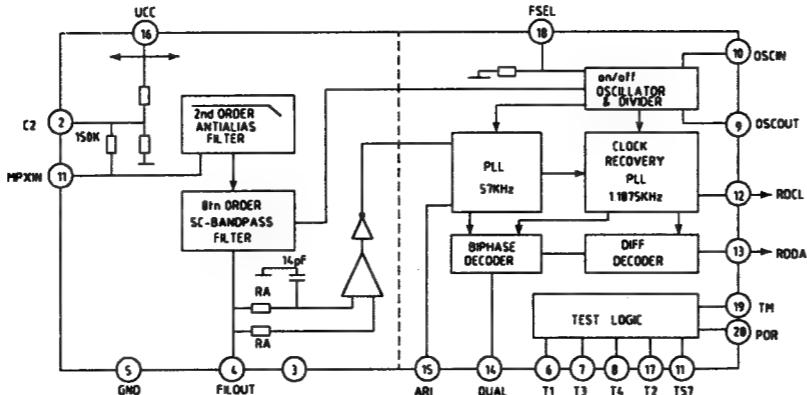
IC 5 : LC7073M



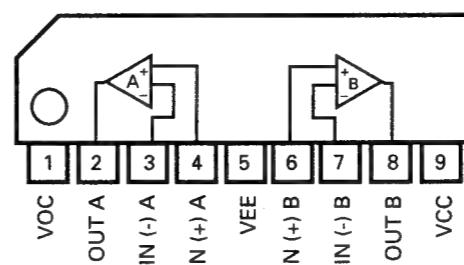
IC 2 : LA1266G



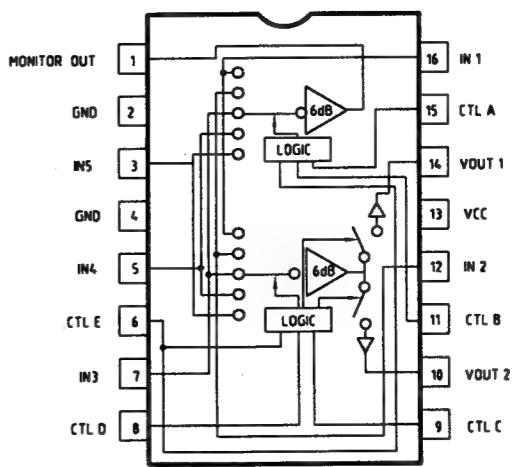
IC 4 : TDA7330BD



IC 101, 107, 501, 503 : KIA4559

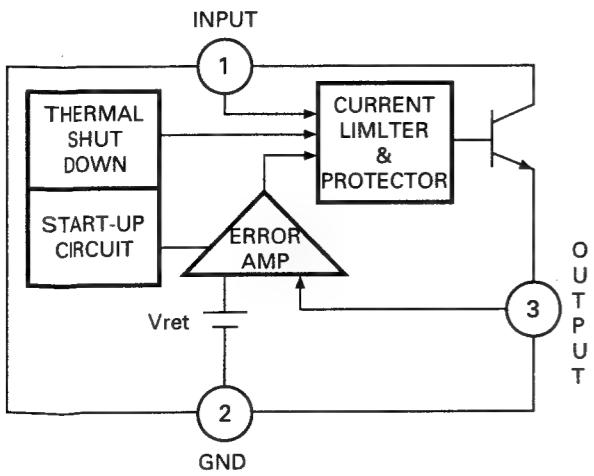


IC 104 : BA7625

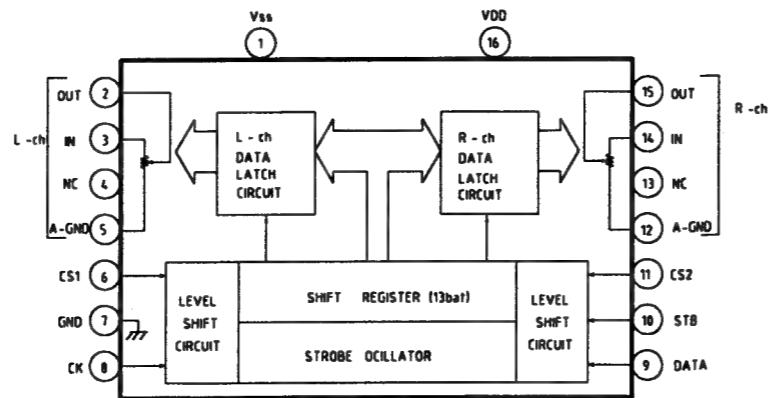


IC 108, 400 : KA7806/GD7806

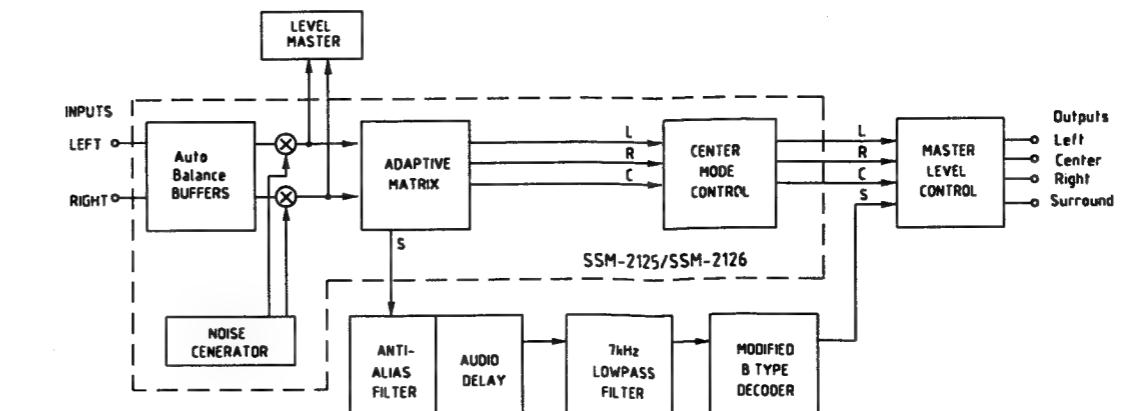
IC 109 : GD7815



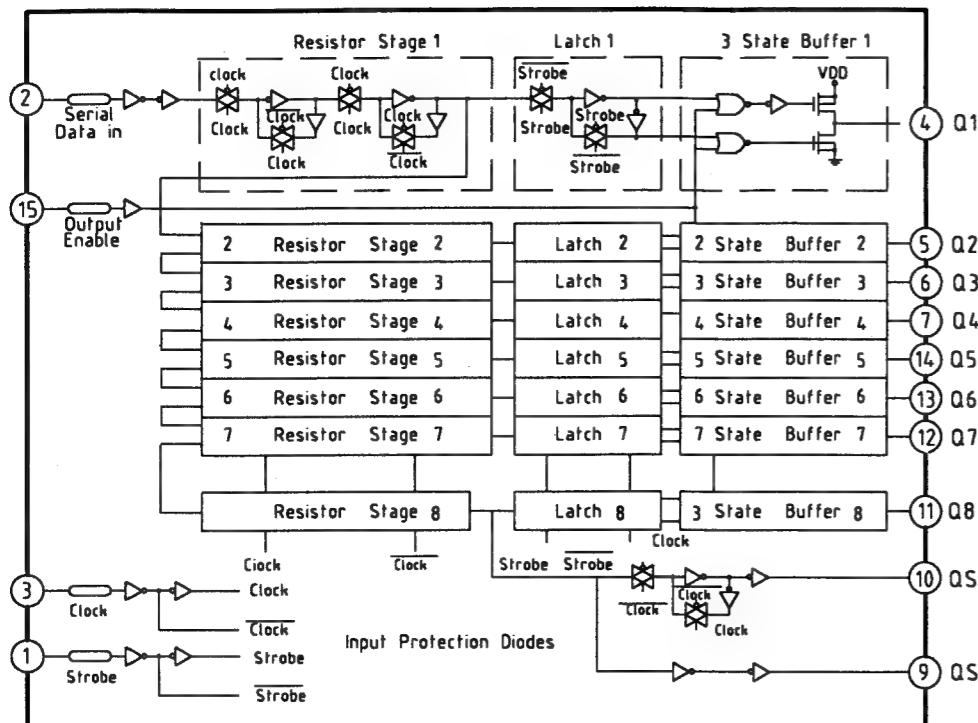
IC 502, 812 : TC9299



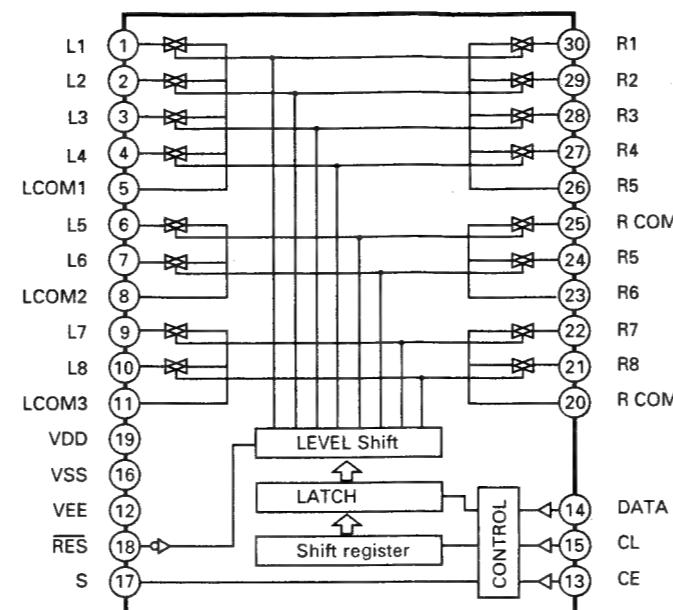
IC 807 : SSM-2126



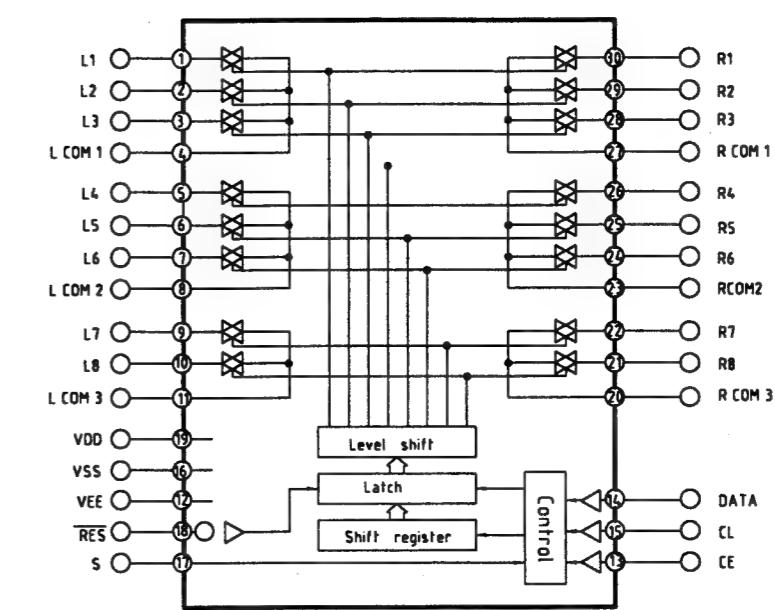
IC 106, 806, 810 : MC14094BCP



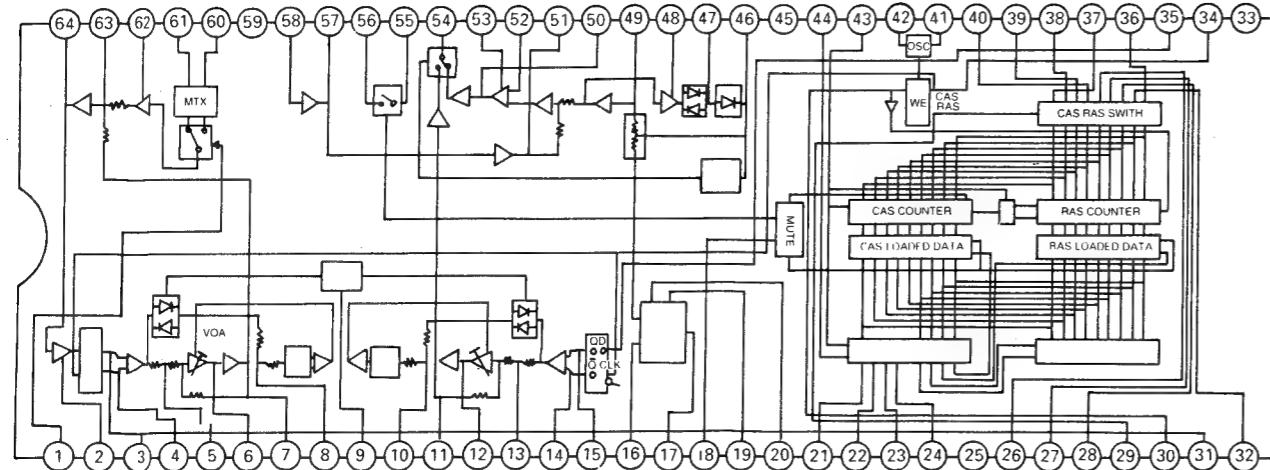
IC 102, 103 : LC7821



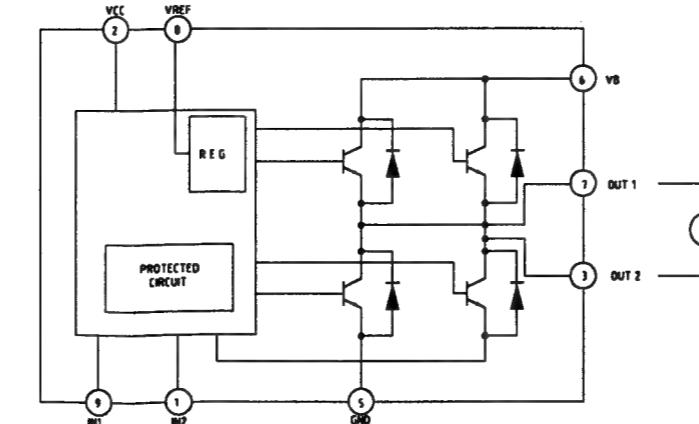
IC 811 : LC7822



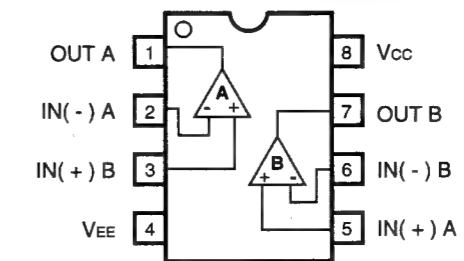
IC 808 : LV-1000



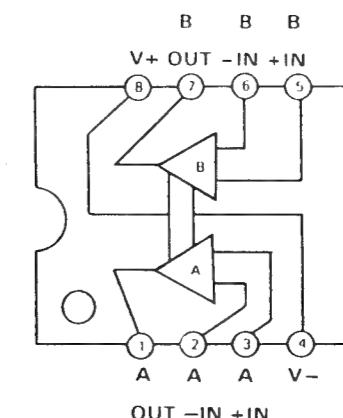
IC 813 : TA7291S



IC 601 : NJM2068DD

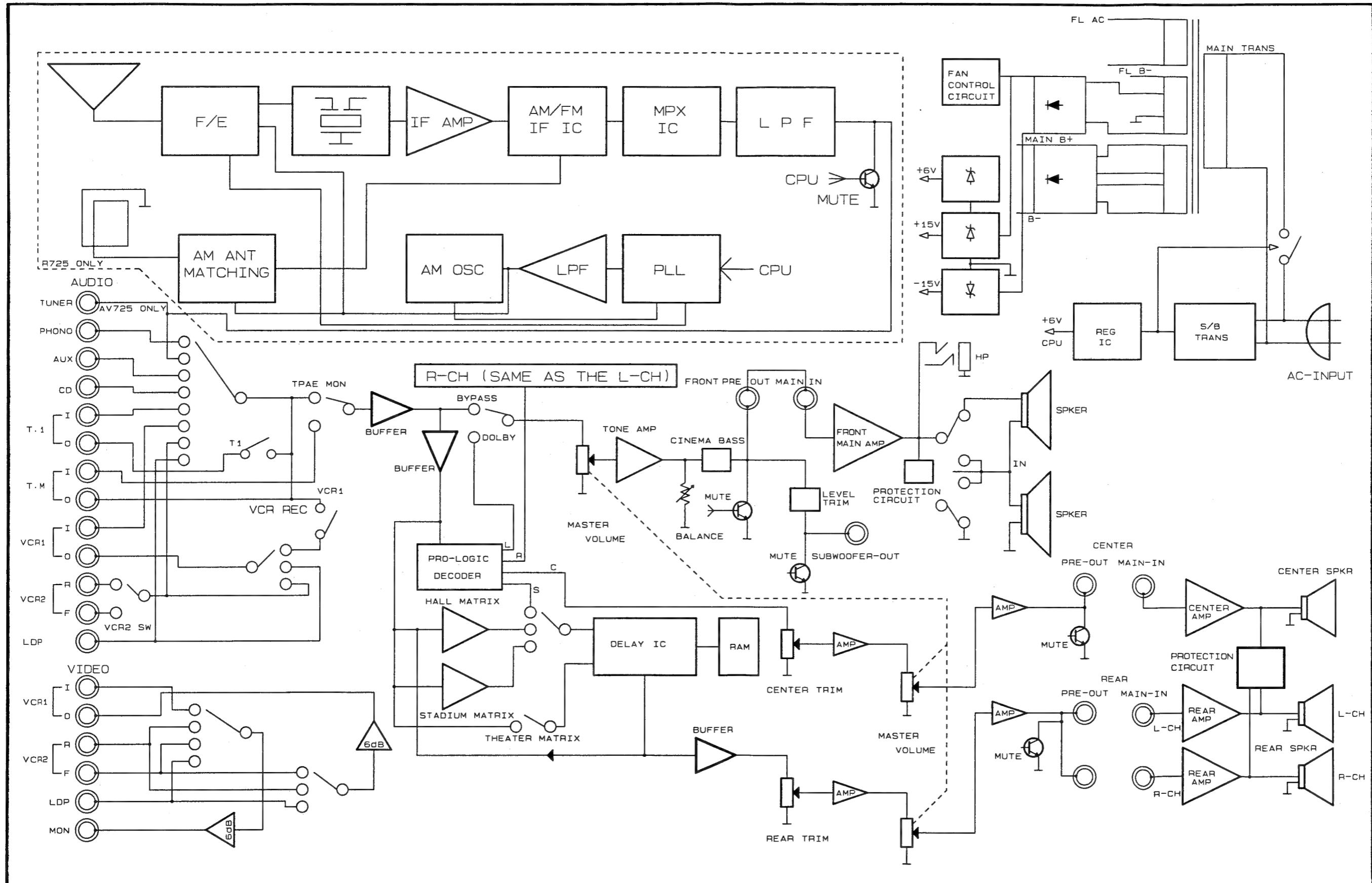


IC 801-805 : KIA 4559P



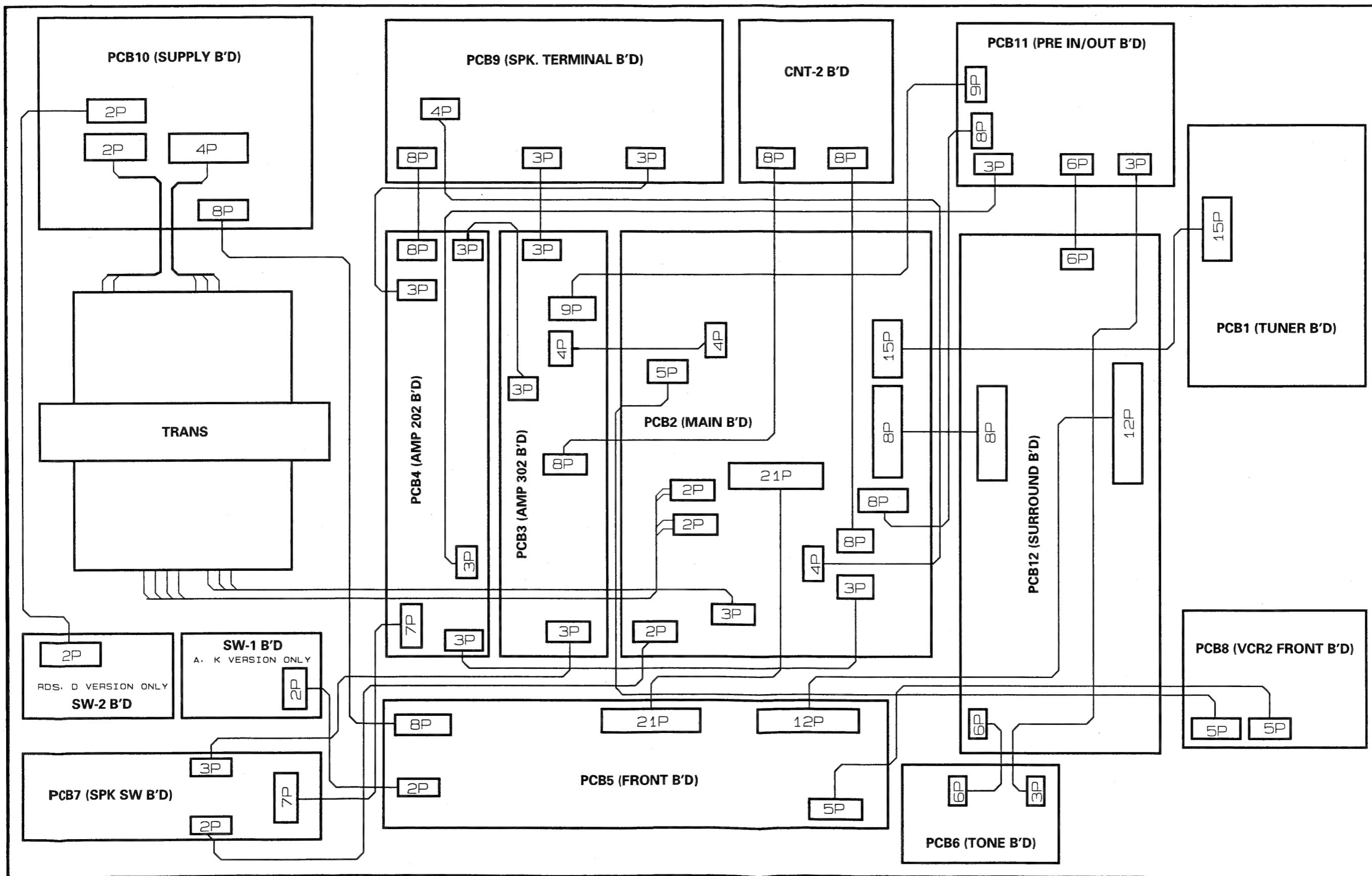
BLOCK DIAGRAM

Model No. : R-725/RDS · AV-725



WIRING DIAGRAM

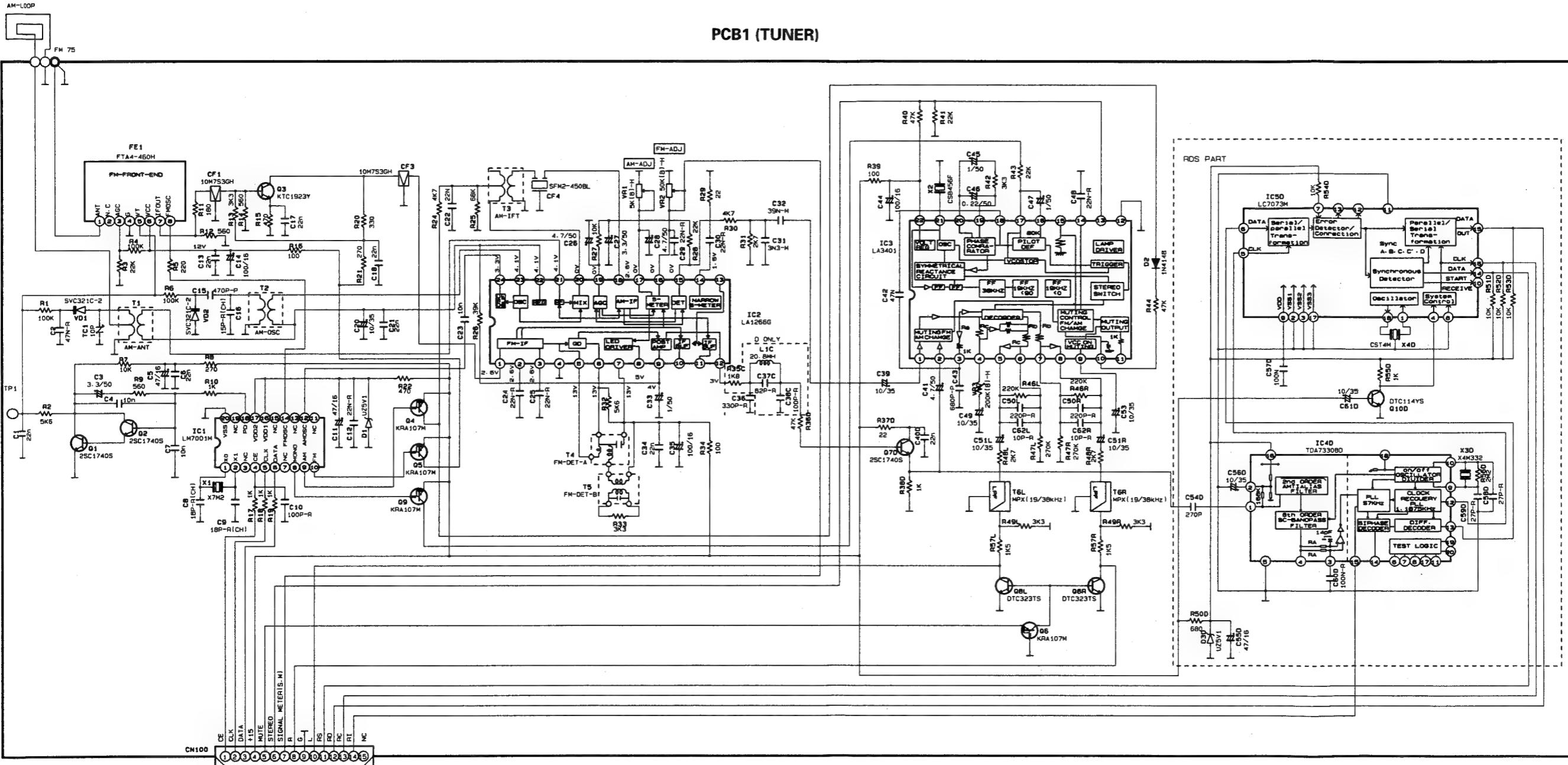
Model No. : R-725/RDS · AV-725



SCHEMATIC DIAGRAM (I)

Model No. : R-725/RDS · AV-725

PCB1 (TUNER)



R. NO	VER.	RDS	D	A
R26		47K	47K	18K
R35C		1K8	1K8	J27
R46L		220K	220K	120K
R46R		220K	220K	120K
R47L		270K	270K	180K
R47R		270K	270K	180K
C37C		B2P-R	B2P-R	X
C38C		100P-R	100P-R	X
C50L		220P-R	220P-R	560P
C50R		220P-R	220P-R	560P
C62L		10P-R	10P-R	68P
C62R		10P-R	10P-R	68P
R360		47K	J25	J25
R380		1K	X	X
C400		22N	X	X
R370		22	X	X
CF2 10 . 7		J26	J26	J26
070		C1740	X	X
L1C		20.8MH	20.8MH	X
C36				330P-R

NOTES

- 1. Resistor values are indicated in ohms unless otherwise specified
(K=1,000 M=1,000,000)
- 2. Capacitor values are indicated in microfarads unless otherwise specified.
(p=micro-microfarads)

CAUTION

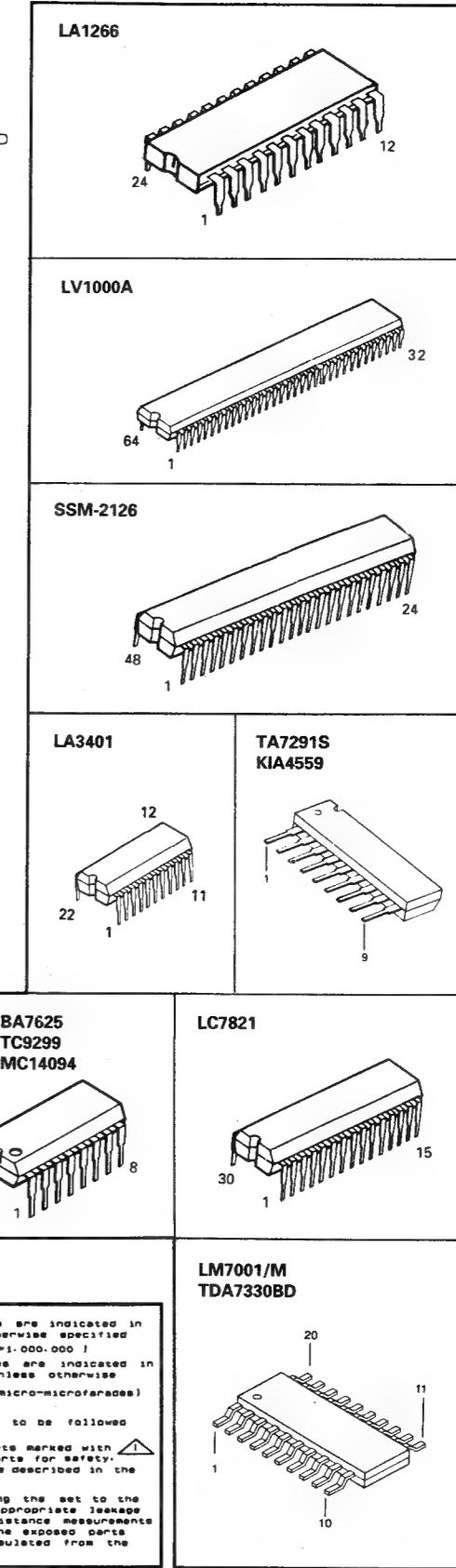
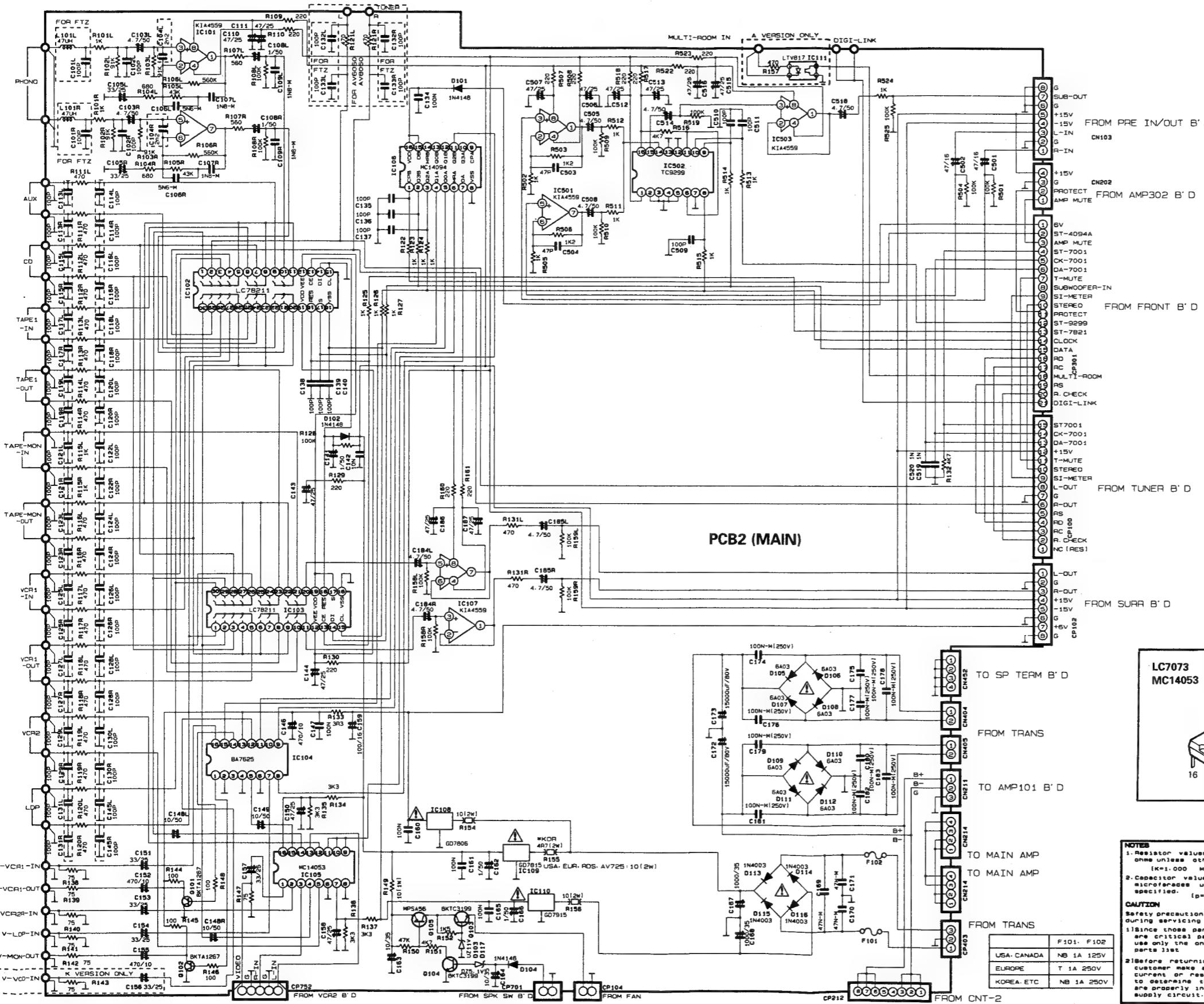
Safety precaution to be followed during servicing

! Since those parts marked with ! are critical parts for safety, use only the one described in the parts list

! Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

SCHEMATIC DIAGRAM (II)

Model No. : R-725/RDS · AV-725



NOTES

1. Resistor values are indicated in ohms unless otherwise specified
(K1.000 MH1.000.000)
2. Capacitor values are indicated in microfarads unless otherwise specified.
(=micro-microfarads)

CAUTION

Safety precaution to be followed during servicing

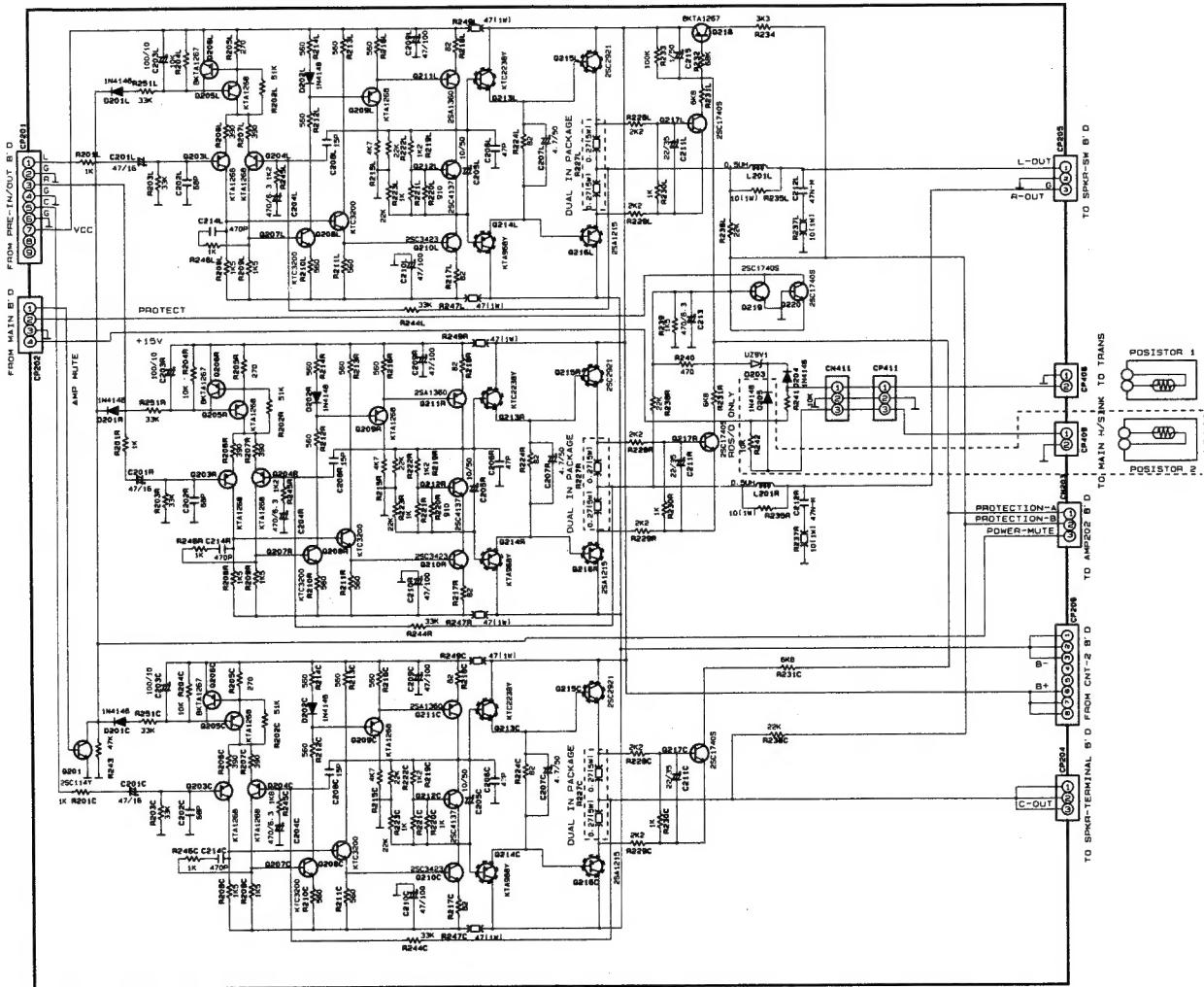
1. Since those parts marked with  are critical parts for safety, use only the one described in the parts list.

2. Before returning the set to the customer, make appropriate leakage current or resistance measurements to determine if the exposed parts are properly insulated from the supply circuit.

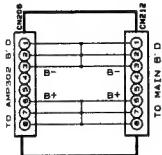
SCHEMATIC DIAGRAM (III)

Model No. : R-725/RDS · AV-725

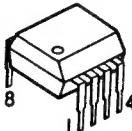
PCB3 (AMP 302)



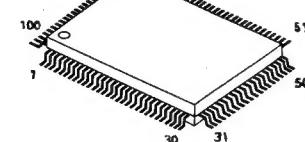
CNT-2 B'D

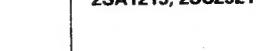
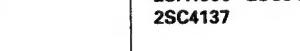


KIA4559P
NJM2068D



CXP82840

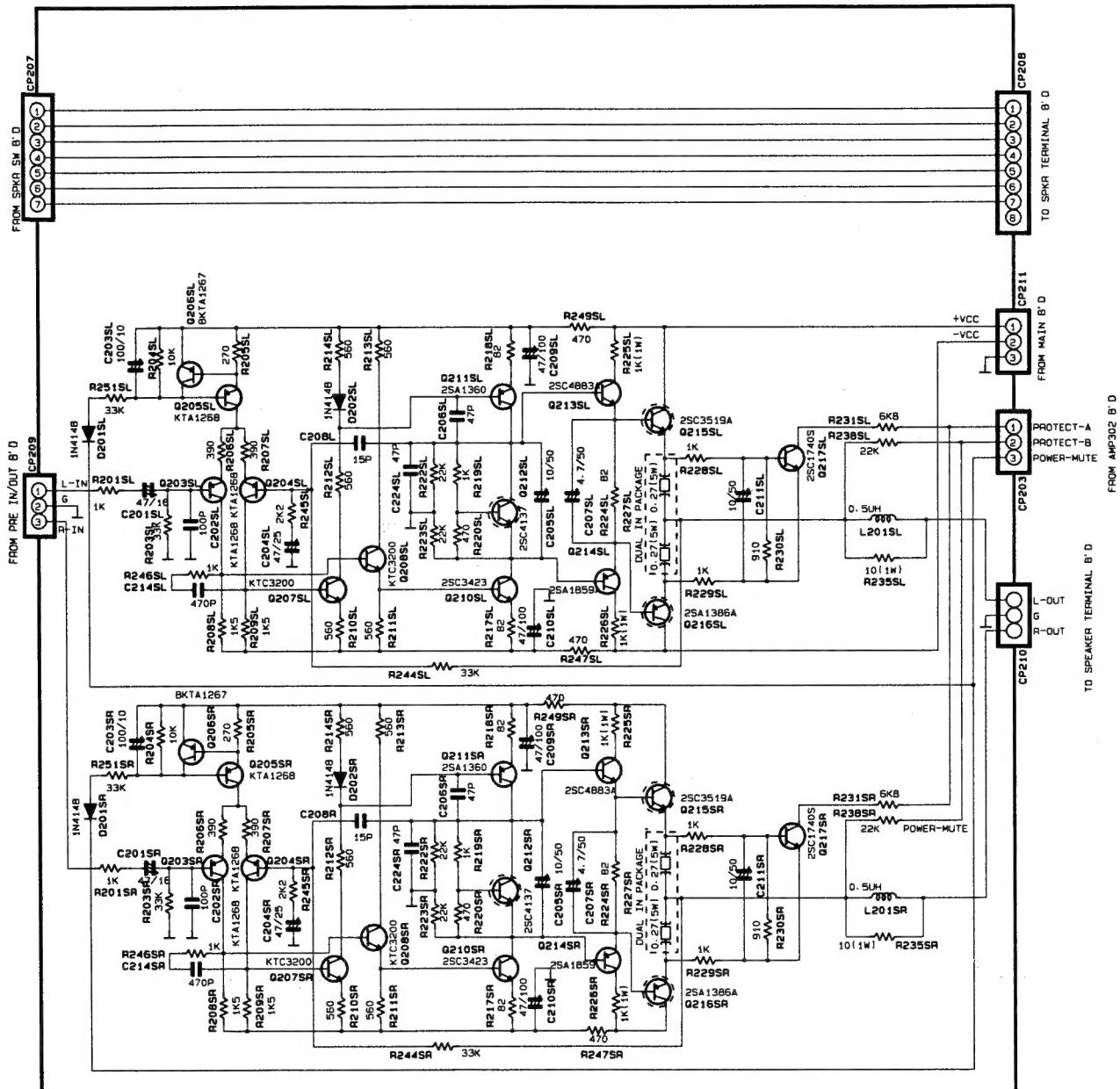


KIA7806/GD7806 KIA7815/KIA7915 2SA1859A/2SC4883A	ZENER DIODE IN4003 IN4148	2SA1215, 2SC2921	2SA1360 2SC3423 2SC4137
			

SCHEMATIC DIAGRAM (IV)

Model No. : R-725/RDS · AV-725

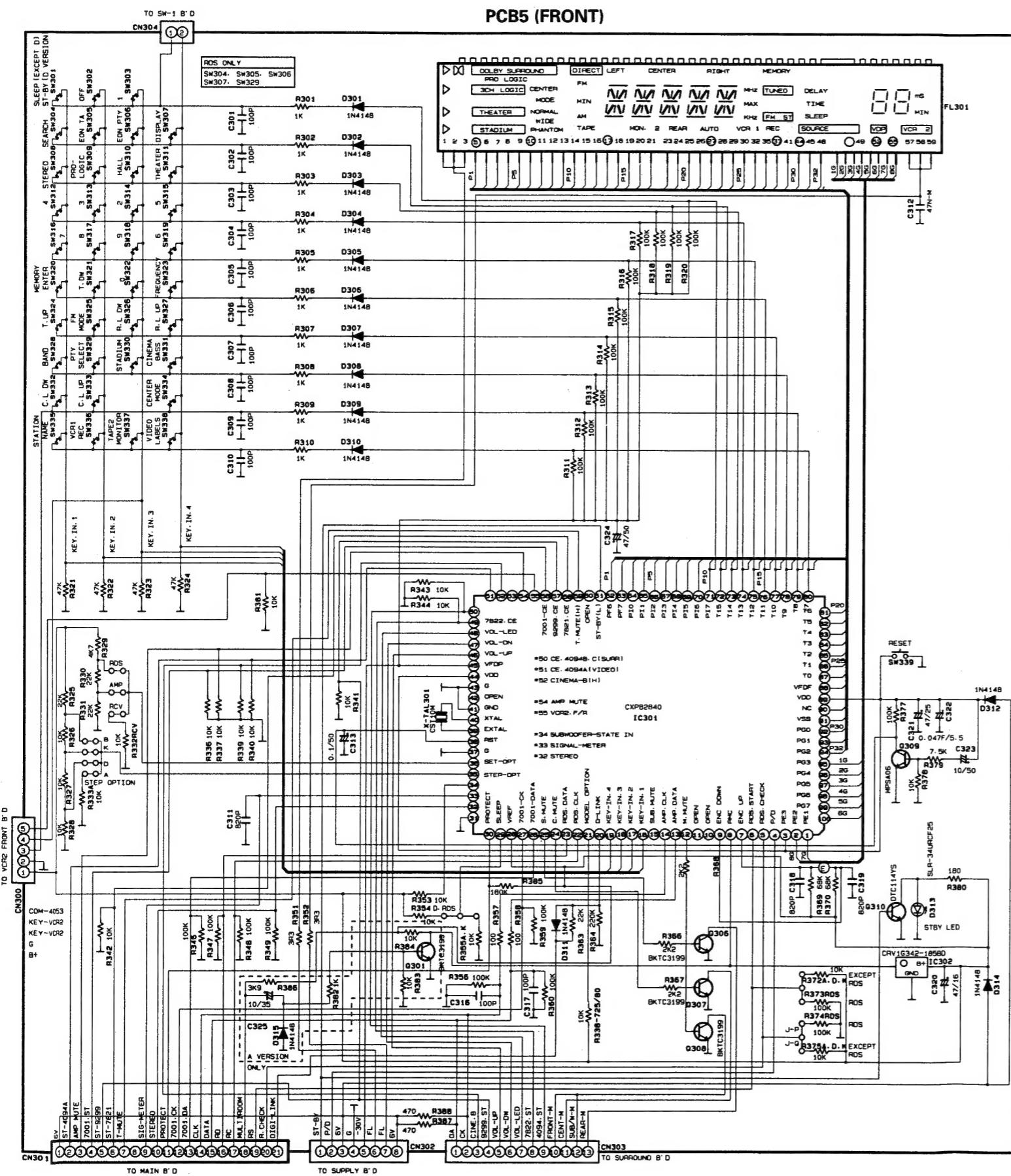
PCB4 (AMP 202)



KDA970/KTA1268 KTA1266/KTA1015Y KTC2240/KTC3200 KTC3198/KTC1815Y	KRA107M/DTA114YS DTC114YS KTD1303 KTC3199Y KTA1267 2SC1740	MPSA06 MPSA56	2SA1386Y 2SC3519Y
			

SCHEMATIC DIAGRAM (V)

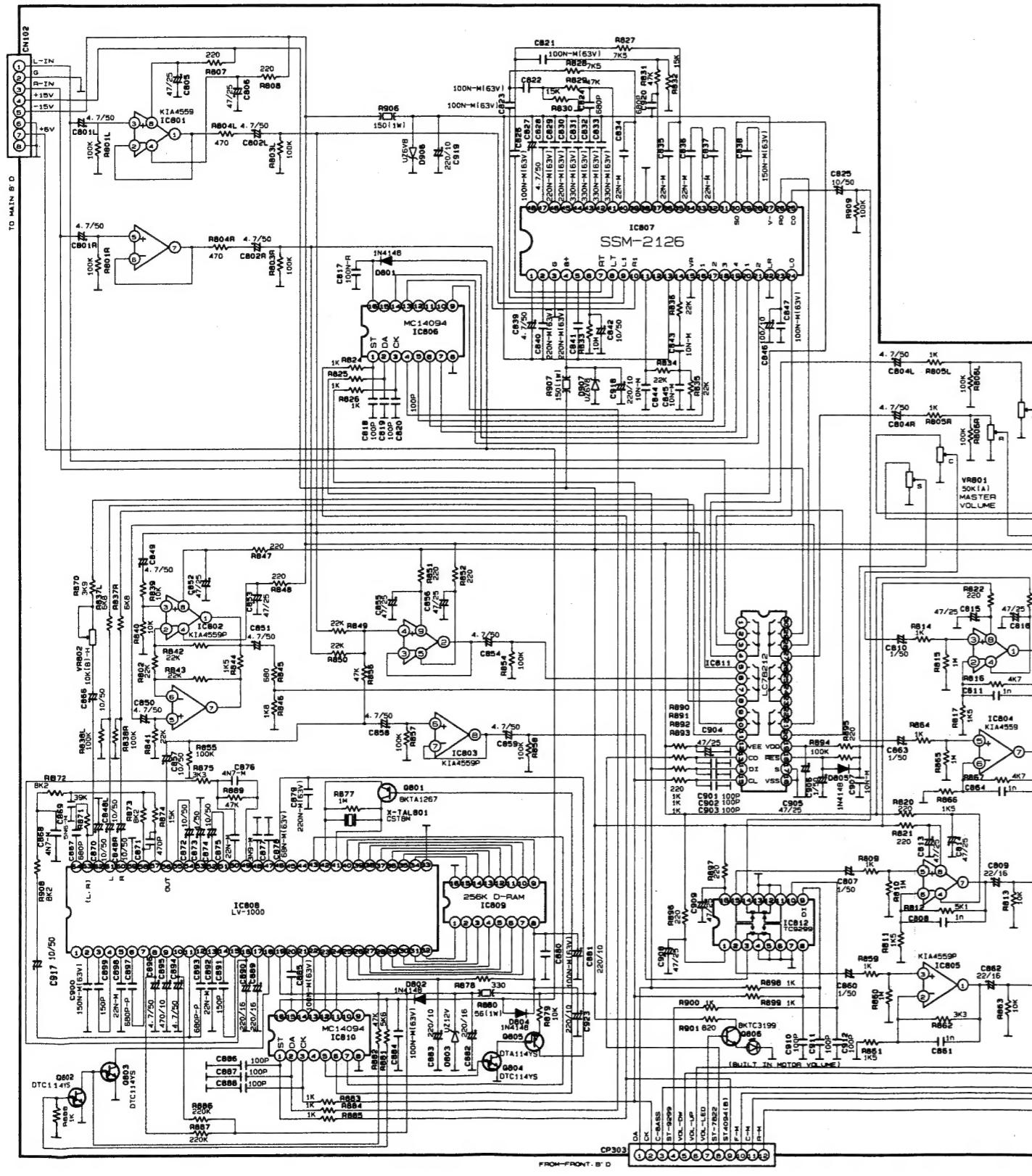
PCB5 (FRONT)



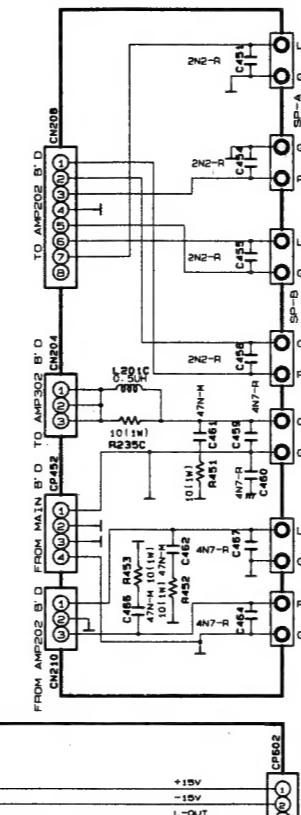
SCHEMATIC DIAGRAM (VI)

Model No. : R-725/RDS · AV-725

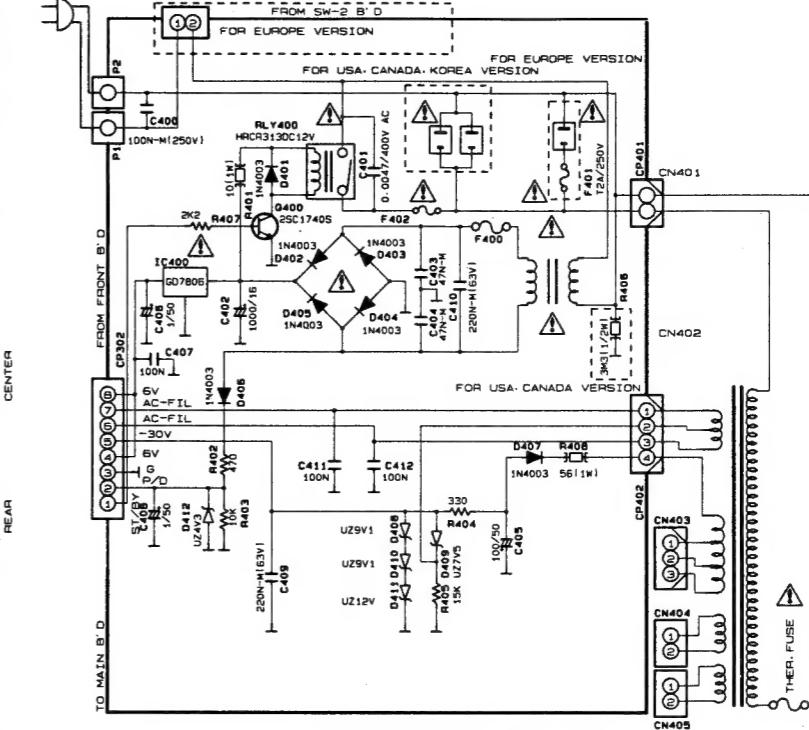
PCB12 (SURROUND)



PCB9 (SPK TERMINAL)



PCB10 (SUPPLY)



PCB11 (PRE IN/OUT)

